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THE HYGIENE OF INSTRUCTION

*A Study of The Mental Health
of the School Child*

BY

LAWRENCE AUGUSTUS AVERILL, PH.D.

*Head of the Department of Psychology in the Massachusetts State Normal
School at Worcester. Author of Psychology for Normal Schools, Elements
of Educational Psychology, Educational Hygiene. Member Advisory
Committee Worcester Child Guidance Clinic, etc., etc.*

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**TO
MY MOTHER**



EDITOR'S INTRODUCTION

WHILE the importance of health may be said to be recognized somewhat generally, the fixed health prejudices and superstitions and the habits of personal neglect which characterize many people make progress in the development of a sound personal and family hygiene discouragingly slow. While the key to the problem undoubtedly lies with the young and in the training of teachers, speaking generally, and with due allowance for the work done here and there by individual institutions, few of the teachers coming from our teachers colleges to-day, despite the recent progress in hygiene teaching which has been made, are prepared to assume the instructional and administrative responsibilities with regard to the physical and mental health of their pupils which every classroom teacher should assume. The teaching of subject-matter still too often takes precedence over the teaching of health habits, and the mastery of facts still too often is regarded as more important than an understanding of the conditions of health and the logic of disease. The health attitudes of the pupil, and his ability to form wise judgments for the regulation of personal, family, or community health, too often are undeveloped because the teacher is untrained for such service and the supervisor places the emphasis in instruction elsewhere.

One of the by-products of the World War has been a new interest not only in the health of the body, but the health of the mind as well. The evident need for sound physical health was called forcibly to the attention of our people by the extensive rejection of recruits as unfit for military service, while the numerous and serious nervous disorders of returning soldiers, and the very important work which has been done in the reëducation of the victims of shell-shock,

have revealed new possibilities in the field of mental hygiene. The cures effected by the psychiatrist have directed attention to the prevention as well as to the cure of mental disorders; the work of the psychologist has revealed the importance of personal habits and attitudes and of home surroundings in the development and the prevention of mental defects; the criminologist has directed attention anew to the study of the hygiene of the youthful criminal; and the hygienist has been able to place new emphasis on the importance of a personal development of proper health habits, diet, sleep, recreation, regulated work, and the practical life habits developed by a sound individual hygiene.

The application of the curative technique of these many workers to preventive work was but a natural step, and the organization of the field of mental hygiene, the prime purpose of which is prevention rather than cure, was the natural result. In this relatively new field it is sought to prevent mental disorders by proper training methods, and to reëducate those — genius or defective or normal — who have already started on a wrong mental path. That the prime requisite in all such cases is a sound personal and home-life hygiene has been shown to be one of the interesting developments of the work.

In the present volume the author has outlined the scope of this new subject, and has stated in simple form its aims, techniques, and accomplishments in dealing with the problems of the mental health of the school child. The treatment here given is complete in itself, and supplements well the author's *Educational Hygiene* and Terman's *Hygiene of the School Child*. The three volumes form a valuable treatment of the field of child hygiene — both physical and mental — for use as textbooks in teacher-training institutions.

ELLWOOD P. CUBBERLEY

PREFACE

THERE have been few developments in recent years in the general field of psychology of more significance than the mental-hygiene movement. In an age of extraordinary family and social unrest wherein the old restraints and safeguards of the home are proving wholly inadequate to orient boys and girls rationally and harmoniously to life and its unusual demands, and wherein parents, teachers, and all other guardians and companions of children are more than wontedly concerned over the magnitude of the task with which they are charged, there is tremendous need for the wise and sane counsel that mental hygiene has to offer.

The keynote of all progressive work in modern medicine, hygiene, sanitation, criminology, etc., is prevention. Very much of disease, of suffering, of crime, is preventable by known methods. So with mental conflict and maladjustment. If parents and teachers but realized the tragic ease with which bad habits and attitudes, unfortunate conditioned reflexes, and hampering and restricting inhibitions are builded athwart the neural pathways during the early formative years of a child's life, they would be happily in a position to forestall many of the diseases and irregularities of the personality that make their unseemly and malign appearance later on to mar and constrict and distort.

The psychopath, the neuropath, the ament, the criminal, and the delinquent might in many if not most cases have been saved from playing their sad rôles by early wise observance of a few simple but fundamental principles of mental hygiene. But far more numerous than these extreme types are those legions of otherwise quite normal and re-

sponsible people who are the victims of unhealthful associations, morbid fears and anxieties, paralyzing reflexes and inhibitions, irrepressible mental conflicts, unsocial and anti-social attitudes and traits, inferiority complexes, personal disharmonies, and other types of maladjustment which sap and enervate and drag down. For these throngs of tempest-tossed human beings the calm ministry of mental hygiene in those early days when the tares were being sown would have been a solace and a benediction.

Most mental conflicts have their source in the childhood years — often even in infancy. If some clever mental analyst could unwind, thread by thread, the unsymmetrical personality of the criminal, or the delinquent, or the sorely tried psychopathic individual, he would find in almost every case the first twist in the thread far back in the school or the pre-school rings of growth and experience. True, heredity may have been unsound and predisposing, but even weak heredity can to a degree be counteracted by wise manipulation of the early environment. Prevention of distorted and disharmonious personalities is as achievable through observance of the principles of mental health as is prevention of physical disease and deficiency. But the beginnings must be made in childhood.

Teachers more than any others, save the parents themselves, should be familiar with the more common of these principles of mental hygiene in order that they may be able to do all things possible to safeguard the personalities of their children both within school and without, and foster in them those traits and attitudes of mind and character that make inevitably for the fullest, completest, and most harmonious lives. To aid teachers and to inspire parents to discharge these high obligations to childhood this volume has been written.

LAWRENCE A. AVERILL

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THE HYGIENE OF INSTRUCTION



CHAPTER I

THE HYGIENE OF ATTITUDE

The meaning of attitude, or "mind set." As an approach to the study of attitudes or mental "sets," consider the following opposite viewpoints,¹ concerning tobacco and tobacco users, expressed by two individuals:

Says Sandeau:

Let me tell you that if you have never found yourself extended upon a divan with soft and downy cushions on some winter's evening before a clear and sparkling fire, enveloping the globe of your lamp or the white light of your wax candle with the smoke of a well-seasoned cigar, letting your thoughts ascend as uncertain and vaporous as the smoke floating around you; I repeat, that if you have never yet enjoyed this situation you have still to be initiated into one of the sweetest of our terrestrial joys. The cigar deadens sorrow, distracts our enforced inactivity, renders idleness sweet and easy to us, and peoples our solitude with a thousand gracious images.

Says Schaeffer:

Talk about a decent man or woman who either chews, snuffs, or puffs! No sensible man or woman will believe it. Tell me a man who chews tobacco is virtuous. I know better! Tell me a man who chews tobacco is wicked and licentious, and I will then believe you. If tobacco be good, how is it that the lewdest, loosest,

¹ M. V. O'Shea: *Tobacco and Mental Efficiency*. Reprinted by permission of The Macmillan Company, publishers.

basest, foolishest, the most unthrifty, most intemperate, most vicious, most debauched, most desperate, pursue it most; the wisest and the best abhor it, shun it, flee it, as the pest?

Were ever two contentions more flatly contradictory than these? With what gentle words does Sandeau, the Apologist, eulogize and apostrophize the weed! And with what torrential blasphemy does Schaeffer, the Denouncer, condemn both weed and user! Surely both men cannot be in the right; the same tobacco can hardly be "gracious" for an addict and "wicked and licentious" for an abstainer. Indeed it is extremely open to question whether either Sandeau or Schaeffer is right. If nicotine has the virtues which the former claims for it, then we all ought to smoke. If, on the other hand, it is associated with the vices that the latter imputes to it, we all ought to wage the liveliest crusade against its continued use. That is certainly an interesting and curious influence at work in the minds of those two no doubt most estimable gentlemen which is able to set them at such loggerheads over the subject of tobacco.

Now this strange influence operating in the minds of Messrs. Sandeau and Schaeffer we shall call, for want of a better term, their "mental set," which we may further define as the general attitude, or point of view, or characteristic adjustment of these men. The one has embraced the viewpoint that nicotine is good, even gracious, to man, and is so firmly convinced that this is the case that he is moved to pity for those who have never experienced its delights. The other has embraced quite the other viewpoint, and is so persuaded of the validity of his position as, on the one hand, to denounce in no uncertain terms all devotees of tobacco and, on the other, to laud and extol those who abstain from its use. The mental set of Sandeau is emphatically toward nicotine; Schaeffer's mental set is no less emphatically away from nicotine and toward abstention. There is no

question left in the mind of him who reads either statement that both men are thus characteristically and unalterably adjusted toward the general topic: tobacco. One cannot fancy any great change of attitude in either gentleman tomorrow, next month, or indeed, barring miracles, in a lifetime. And not only will these respective attitudes endure, but they will continue to grow stronger and more emphatic with the passing of time. Like habits, attitudes or mental sets become fortified through repeated practice.

The all-pervasiveness of attitudes. It is remarkable, when one stops to think about it, how completely we are all creatures of attitude, of mental set. Having developed an adjustment that pleases or satisfies us, we continue to exercise it until it becomes an integral part of our nature and of our character. Evidences of the all-pervasiveness of attitudes are innumerable and on every hand: life itself is little more than an accumulation of mental sets. Illustrations of these adjustments are observable interestingly in the attitudes which people develop and maintain toward no less common a situation than their daily work. Some individuals are indefatigable in their industry, tireless in their ambition to do the day's task and to do it with their might. From the scrub woman in the hallway to the great captain of industry beyond the office railing, this consuming attitude on the part of many toward the work of the world makes itself manifest to the discerning. Steadfastness, faithfulness, even enthusiasm, are stamped indelibly upon the labor performed by those who have the positive and aggressive mental set toward the tasks which it is their lot to perform. On the other hand, there are those other workmen whose attitude toward their work makes them wasteful, idle, and slothful. Found in all walks of life, from slave to master, and from serf to noble, laborers of this sort have always brought to their tasks a mental set that not only slows down

the wheels of industry, but far worse than that weakens and debases those who operate them. To shirk wherever possible; to skim here and pare down there; to work diligently under the regarding eye of an overseer, but to loaf consistently when that eye is turned in another direction; to despise toil and the fruits of toil; to become animated only when the whistle blows or the clock hands point the hour of closing — these are tokens of another attitude, another mental set toward work that is found strongly developed in not a few of those who perform the world's labor.

Yet another striking example of characteristic human attitudes and adjustments may be seen in the set developed by men toward custom or convention. To the mind and the way of thinking of the conservative, tradition is little short of sacred, whether that tradition concern family, social custom, politics, government, religion, education, racial and national characteristics, or what not. Major Ian Hay, to illustrate the traditional formalism and aloofness of his English countrymen, tells a story of six British soldiers who, after having been incarcerated for several days in a dugout, were at length liberated by a relief party. Two of the imprisoned Tommies were Scotchmen, and when found they were heatedly engaged in a theological argument; two others were Irishmen, and they were fighting; the remaining two were Englishmen, and they were completely disregarding one another for the abundantly sufficient reason that nobody had introduced them! Racial and national temper of this type exemplifies excellently the meaning of mental set.

In a similar vein, the Chinese celestials, previous at least to the advent of Occidental customs and influences among them, might be thought of as imbued with conservative ideals and attitudes. On the other hand, reds, revolutionists, and nihilists typify the most extreme of radical attitudes and mental sets. To the true Confucian the past is

hoary with tradition and sacred with convention and meaning; to the "red," convention and tradition are unblest survivals of a reprehensible and malicious past which cannot be uprooted too soon nor too violently. To a lesser degree, most countries and most commonwealths number or have numbered among their citizenry Whigs and Tories; the independents and the "Old Guard"; the conservatives and the progressives; liberals and reactionaries; conformers and dissenters; right wings and left wings; Republicans and Democrats; as well as all types of socialists and laborites. Each one of these multifarious brands of distinction represents a characteristic way of thinking, a political attitude, a political mental set.

The practical importance of attitude or "set." We take it for granted then that the characteristic adjustments we make to the innumerable life situations with which we come frequently in contact fasten themselves upon us with all the strength and tenacity of habits, and that we can no more throw off their shackles than we can throw off the shackles of habit. To be a worker or a drone; to be a conservative or a liberal; to be an optimist or a pessimist; to hunger and thirst after righteousness, or subsist on the flesh-pots of Egypt; to hoard or to expend; to hate or to love; to commingle or to draw apart; to flutter or to soar — it matters little so far as the central truth is concerned: every day and every hour confirm us in whatever inner attitude we are fashioning toward this or toward that recurring situation that faces us anon.

All this is immensely important, not because we must inevitably develop mental attitudes toward so many and diverse stimulating agents in the environment, but because the adjustments and sets which we hit upon may be either healthful or unhealthful. On the one hand, they may be positive, beneficial, rational; may make for a better-

coördinated, more satisfying, freer, and pleasanter existence; or, on the other hand, these adjustments may be negative, harmful, irrational; may make for an ill-coördinated, more annoying, more restricted and trammeled existence. They may, in other words, like our habits, as Professor James would say, be our best friends or our worst enemies. In the former category are attitudes of open-mindedness, sympathy, industriousness, coöperation, etc.; in the latter are attitudes of selfishness, conceit, dalliance, aloofness, etc.

Possibly the attitude manifested by natives to the typical northern winter will serve to illustrate as well as anything that could be cited healthful and unhealthful adjustments or mind sets. To some, the coming of the snows and cold of winter means the ushering in of a season of vigorous achievement. The inner fires of ambition roar pleasantly, and one is fain to throw himself heart and soul into accomplishing, producing, bringing to pass, those things which he has long dreamed and planned. The harshness of the climate is counteracted by the fervor and zeal with which one plunges into his work. The rigors of the elements provide just the stimulus needed to drive one into determined activity that warms and vivifies.

To others no less hardy, however, the advent of the wintry months means imprisonment within doors; the imminence of coal strikes and shortages; a greater susceptibility to colds and other respiratory diseases; a disagreeable and a dangerous time which must be borne with rebelliously and complainingly. These irate individuals rail at each fresh fall of snow; shiver at each icy blast of wind; scowl thunderously at the inoffensive snow shovel; and discourse savagely upon the state and prospects of the weather. Instead of a time of renewed effort and sharpened initiative, winter connotes in their minds and lives a hibernating period which can neither be escaped from nor adjusted to. There is ample justifica-

tion for the aged and the infirm to dread and revile Old King Winter, but their ranks are swelled unbelievably by many a younger and sturdier individual who refuses to accept and reconcile himself harmoniously with the inevitable, and who in consequence remains seclusive, morose, and querulous each year from November to March.

Now the point the writer is trying to emphasize in all this discussion is, that attitudes and mental sets which human beings assume that are out of harmony with the general environment, or that conflict sharply with the general viewpoint and temper of society, are likely to be unhealthful, and are often decidedly so. A maladjusted individual, whether his distemper concern itself with the daily work which he performs, with the recognized conventions, standards, customs, etc., of the age, or yet with his friends, acquaintances, superiors, and fellowmen, or with the ways and workings of the Creator, is both mentally ill himself and is in the way of becoming a suspicious center of contagion for the distemper which emanates from him. No one with whom he is thrown much in contact can be sure of escaping infection. The subtle influence which the established attitudes and convictions of maladjusted individuals exert over the mental health of otherwise well-adjusted people is strikingly illustrated in the power of an opinionated editorial writer to mislead thousands of his gullible readers; or of a soap-box orator to beguile half the people within sound of his voice; or of a monomaniacal novelist to inflict his peculiar brand of venom upon an always eager clientèle, or yet of a cynical philosopher to implant the seeds of skepticism and bewilderment in the minds of plain people, who would be much happier, healthier, and more husky on a diet of the milk of the shepherd than of the meat of the sage.

How attitudes, or "sets" develop. The question as to

the origin and development of these all-powerful attitudes that play such significant rôles in our lives is an interesting one. Our knowledge of the influence exerted by an individual's hereditary equipment over the serenity of his mental life is still somewhat obscure, though there can be no doubt but that there are implicit within the neurones strong and perhaps irresistible trends which operate to polarize much of the behavior and many of the adjustments or lack of adjustments in the individual. Inasmuch, however, as we have no way of disentangling Nature from Nurture, we shall be compelled to limit our analysis to the latter influence, bearing always in mind the probable contribution of the other.

Our attitudes or mental sets are builded in two ways: through the passive influence exerted upon us by the moulding environment and example amid which we live; and by the active, thoughtful, and purposive mental reactions that we make to the experiences which we encounter from day to day and from year to year. Prominent among those adjustments which fasten themselves passively upon us through the power of social imitation may be mentioned our political attitudes, our racial tolerances and intolerances, and most of our social customs. Adjustments of this type are in considerable measure thoughtless, uncritical, and naïve, and are fashioned more or less spontaneously and reflexly. The spontaneity of their genesis and evolution is, however, no indication that mind sets thus determined are ephemeral in nature; on the contrary indeed, many of our most firmly rooted adjustments are but the impress left upon us by environmental forces so unobtrusive and so incidental as to arouse no conscious awareness of their reality or imminence. Mind sets established through the passive influences of social imitation are neither reasoned nor willed, but become as unescapably a part of our natures as does the very air we breathe.

In quite another category are those mind sets which we create and nurture consciously, purposively, and actively as a consequence of our experiences. The human self is so constituted that interactionism between the ego and the environment occurs continually, the latter providing the opportunity and the setting for the expression which the former seeks tirelessly to achieve upon it. An irresistible by-product of this continuous and conscious contact of the self with the forces and situations external to it is the inevitable mind set which develops in the former toward the latter. Some of these attitudes are unquestionably positive and healthful; many of them are equally negative and unwholesome. Some of them are the result of personal reflection inspired by our reading, our introspection, and our reasoned intelligence and rumination. Others of them represent the power of the example and persuasion of our associates and friends whose viewpoints, attitudes, and ambitions seem to us to be genuine and worthy of emulation on our part. Let us consider an example or two to illustrate the purposive and active mind sets we construct, in contrast with the passive ones we imbibe thoughtlessly and naïvely from the social environment.

Creation of new mind sets. In a newspaper, some time since, the writer enumerated no fewer than two scores of alluring advertisements inviting the readers to avail themselves of the very attractive terms offered them for buying such indispensables as automobiles, radios, pianos, jewelry, clothing, etc., with a small initial down payment and the balance on easy terms. Some of the invitations were supplemented by the assuring statement that no questions whatever would be asked, and no guarantee of any sort exacted. Judging from the number and the omnipresence of advertisements of this type, one should be led to conclude that a tremendous volume of buying on the deferred-

payment plan must be being carried on in this country; that the credit attitude has been so skillfully nurtured among the general public by clever sales promoters that hundreds of thousands of people have yielded to its allurements, and are enjoying while they pay rather than after they have earned. This conclusion appears to be amply supported by the ledgers of big business; in the automobile field alone, it is a fact of record that eighty per cent of the three millions of new cars built in 1925 were sold on the credit scheme.

Protesting strongly against this mind set of both buyer and seller, which permits and even urges people to put a mortgage on next week's work, and sometimes on next year's, and which tends to smother those saner virtues of thrift and industry, a recent writer¹ expresses regret that

One who brings an honest face to the counter and a job to the notice of the credit man may buy a motor car for \$12.60 down and \$5.00 a week, a \$200.00 talking machine for \$5.00 down, a suit of clothes for \$3.00 down and wear it away, jewelry for nothing down and a set of dishes thrown in. . . . Credits can get no looser than that. . . . The year's total credit (1925) extended in installment accounts must approach, and may exceed, five billions of dollars. This is one twelfth of the national income. . . . Marvelous things can be done with ledgers and figures by shrewd financiers; but after all, credit is not and never has been a bottomless pit, as all discover who proceed long upon that assumption.

There are, it appears, quite other attitudes, other mental sets, toward the great credit octopus than those cleverly nurtured in prospective buyers of small means by the promoters and the sales agents. Both adjustments have, however, been achieved actively and purposefully by all concerned.

We might refer, by way of further illustrations of active mental adjustments, to the question of the punishment of

¹ Arthur Pound, in the *Atlantic Monthly*, February, 1926.

lawbreakers. Here is an editorial writer who berates roundly those "milksoy sentimentalists who look upon criminals as individuals to be pampered and experimented upon rather than as dangerous persons who should be dealt with summarily." Here is one of the "milksoys" pleading for "a system that will get at the roots of a criminal's dereliction and try to chop them off scientifically." The average person who reads the sentiment expressed by the first editor will almost inevitably assume the attitude that law is law, and that he who breaks it should pay the full penalty, regardless of all contributing circumstances. The criminal is to be punished and not sentimentalized over. The reader who, on the other hand, formulates his conception of the lawbreaker upon the opinions expressed by the second editor will be very likely to assume the attitude that the criminal act is but the logical and inevitable expression of certain unfortunate environmental or hereditary forces that have been playing upon the individual. Whichever mind set we develop in the matter, the fact remains that we do develop a certain characteristic adjustment toward criminals which remains an integral feature or characteristic of our personality, our self.

Right attitudes can only come about through right reacting. Mental sets are inevitable. We can no more avoid them than we can avoid forming habits. They are built up from the myriads of contacts which we make daily and even hourly in the great world of experience. The highly significant and important thing is that those attitudes which become identified with us shall be just as wholesome, just as salutary, and just as hygienic, as it is within our power to make them. Right attitudes can come about only through right reacting. A situation reacted to in an unhealthful manner is always a bad precedent, for just as our habits are outgrowths of a series of responses closely similar to the

initial reaction which was made to a specific situation, so our mature attitudes and mind sets reflect rather faithfully adjustments previously made in similar situations.

The bearing of all this upon the educative process. We are sometimes in danger of making the very false assumption that the learning of prescribed lessons in the schoolroom and the satisfactory accomplishment of certain set tasks constitute the sole and proper function of the educative process. We are likely to conclude naïvely that if and when a child has mastered a certain minimum of skill and information he has reaped the full advantage and profit of the schoolroom, and the whole transaction between the forces that educate and the individual being educated has been satisfactorily completed. There is in this philosophy a grave and serious error.

After all, educational values do not attach solely to the mastering of form and content subjects laid down in a course of study, save only in the very narrowest and most circumscribed sense. Real educational values are to be sought rather in the type of human product that the system turns out. There are essential ways of thinking, viewpoints, ideals, convictions, and attitudes that are indispensable concomitants of the formal process of education. It is not enough that a product of the school shall know the chief causes, events, and results of the Civil War, or the principal products of Brazil, or indeed how to solve a problem in mensuration, how to write legibly, or how to spell passably well. These are important acquisitions, it is true, but they are by no means all-important.

It becomes therefore a prime task and function of the school, along with its attention to the formal content of the course of study, to determine what are the desirable attitudes and mind sets that should be nurtured in the learners, and then so to manipulate the whole learning situation that

these desirable adjustments cannot fail to be brought about.

Some important mind sets to be fostered in the schools. Regardless of whether or not efforts are made by the teacher to promote in her pupils wise mental attitudes, she may be sure that they are forming every day, in connection with every task they perform at her behest or suggestion, pronounced mind sets toward the immediate work at hand, toward the teacher and the school, and often toward people, activities, and events outside the seclusion of the school in the great teeming world of men. Left to themselves, or under the baneful influence of faulty pedagogical viewpoints and procedures, the pupils are as likely as not to create for themselves unwholesome and unhygienic mental attitudes in scores of situations and relationships. Under the benign and quiet influence of wise and sympathetic teaching, on the other hand, they can be stimulated naturally and simply to embrace and to cultivate those mind sets which are indispensable in the wholesome and hygienic adjustment to the realities of life and the obligations of good citizenship. Let us enumerate a few such highly meritorious attitudes.

Fundamental among all the healthful mental adjustments that need to be established early in the life of the individual is the right set toward work. Fortunate indeed is the man who has been taught by wise precept and wiser example that work is ennobling as well as enriching, and that whatsoever the hand findeth to do is to be done with one's might. There is a dignity and a glory attaching to work when the whole personality of the worker is thus absorbed in it. Wholly different is work that is performed half-heartedly, irksomely, or perchance rebelliously; and wholly different is the effect of such performance upon the mind and spirit and the sanity of the worker. That is the wholesome, hygienic attitude of mind which looks upon the daily work, if not as a step toward heaven, at least as an ever-

renewed opportunity to give one's self and one's best in unstinted effort to achieve and to bring to pass. The shirker, the dawdler, the idler, the complainer, and the sluggard are all excellent illustrations of bad mental hygiene; for just as the physical organism achieves strength and suppleness through steady and reasonably taxing exercise, so the mental health is safeguarded and promoted by a positive and vigorous attitude toward the dignity, the importance, and the worth-whileness of the work which one has to do. Other things being halfway equal, the hard-working man is mentally sound and well-adjusted, while the lazy and idle man is equally unsound and ill-adjusted.

Significance of the work of the teacher. The child in the school is forming, every day of his life, healthful or unhealthful attitudes toward his work and toward the work of the world. The significance of the rôle which the teacher plays in the development of these basal mind sets in the pupils can hardly be overestimated. If she is herself an earnest worker, and if she is clever enough to translate the bulk of the educative process into the performance of appealing and worth-while tasks that will stimulate wholehearted and honest participation on the part of most of the learners, it is logical to suppose that they will be adjusted reasonably healthfully and positively toward the work to be done, and will be strengthening daily one of the most fundamentally hygienic of all mental attitudes. The wise teacher will neither inspire nor accept anything short of the best efforts of which a child is capable.

There are innumerable schoolrooms, however, in which quite the opposite pupil adjustment toward the daily tasks is fostered. In many a school the teacher is herself a mediocre and ambitionless workman who is content to accept the second best, or even the tenth best, of what her pupils are

capable of doing. Besides this unfortunate weakness of character, many teachers lack the skill and the educational insight to motivate the work in such a way that it will captivate the fancy of children and encourage them to perform at high speed and with consuming interest and effort. Strong and clear objectives are too rarely set up for the pupils to comprehend and strive toward. The whole process too often appears to them aimless and of indifferent value. To-day's tasks are thought of as merely inventions on the part of the teacher designed to keep one out of mischief, or at best to teach one something that has after all little genuine redeemable value in the great beckoning world outside the schoolroom. Once such a conception of the school and the tasks of the school finds lodging in the mind of a child, he is extremely likely thenceforth to adopt a highly reprehensible attitude toward them. While the more conforming pupils may continue to react on the whole wholesomely, those less so will naturally adventure into numerous attitudes anything but hygienic and salutary. Among such unfortunate attitudes may be mentioned the following: intellectual languor and passivity; inattentiveness to and eventually dislike for the task in hand; deceitfulness through seeming conformity; excessive day-dreaming and indulgence in idle fancies; shiftlessness and irresponsibility; chafing against the restraints of the schoolroom; and distaste for all honest work, outside the school as well as within. Every one of these mind sets — and others that might be mentioned — is unwholesome and unhealthful, and an educative process that operates to create or promote such is in crying need of reorganization and reconditioning.

Nor are we to conclude that the fault in such a situation is entirely or even, necessarily, primarily the teacher's. Poor pedagogy plays a strong rôle in the tragedy, it is true; but obsolete curricula and bungling course-of-study makers

are also leading actors. Still other extraneous factors that operate to supplement these poor players are those parents who do not understand and sympathize with what the schools are trying their best to achieve, and who do not hesitate to speak critically and disparagingly of them before their children. "I don't know what kind of teacher my Harry has got," complained one such mother recently, with a fond glance at Harry's interested face, "but she certainly doesn't know anything." The ladies to whom severally the remark was addressed acquiesced with many an approving nod, the while Harry grinned appreciatively, and hurried off to acquaint other children of the parental opinion of their teacher. What sort of pronouncement is this for a parent to make of a teacher whom she does not even know? Small wonder if Harry and his pals looked somewhat askance at their teacher next morning, and devoted more effort thenceforth in studying how to avoid the daily tasks which she set them than how to perform them!

Some important school virtues. There are numerous other positive mental attitudes besides those concerned with one's faithful performance of the daily work which the experiences of the schoolroom should promote in the learners. These include truthfulness in every school, and so far as possible in every non-school, relationship; sympathy with one's mates, with the chief trades and occupations of mankind; and with the ideals, viewpoints, and aspirations of other peoples and other countries; loyalty toward all with whom one is thrown into contact, and toward the best that is within one; broadmindedness and liberality of judgment and conviction; confidence in the present order of things, supplemented with an expectation of a nobler and better order to be achieved; an abiding belief in the ultimate goodness, justice, and wisdom of man; and appreciation of the responsibility which every individual should feel toward

making the world a better place to live in and himself a better person to live in it. These are among the chief virtues that we should like to charge the school with a good share in promulgating and establishing, to the end that the fundamental mental adjustments of the rising generation may be positive, healthful, and hygienic. The educative process is properly concerned with developing in the minds of the learners a lively consciousness of and a real zeal for the pursuit of "whatsoever things are good, whatsoever things are pure, and whatsoever things are of good report."

From this viewpoint, and from the standpoint of the ideals set forth in this chapter, the young teacher should be deeply conscious of the fact that the teaching of geography and history has a far greater significance than the mere acquainting of young people with the chief facts of human experience; and that elementary science, nature study, mathematics and the arts have a wider importance than the mere accumulation of facts and the development of skills. She should understand profoundly that rising directly out of experiences with these and other subjects of the curriculum there are certain to be fundamental viewpoints, attitudes and conceptions which will exert just as great influence over the learner as will the bare information and the skill which he derives from them. She should realize that her way of teaching, her enthusiasm and earnestness, her personal attitudes and ideals, and the general atmosphere with which she surrounds the instructional process will influence markedly the whole adjustment of her pupils toward not only the work of the schoolroom but toward one another, toward society in general, and toward the entire range of their present interests and future experiences. Finally, she should be seriously aware of the fact that the fullest and most complete and satisfying life is the life that is ruled by right attitudes, healthful mind sets, and salutary view-

points, and that in the developing and building-in of these hygienic adjustments the influence and example of the teacher is of tremendous significance.

TOPICS FOR SPECIAL STUDY AND REPORT

1. Make a list of as many attitudes of mind as you can think of. Arrange as many as possible of these in parallel lists, labeling one "Hygienic Attitudes," and the other "Unhygienic Attitudes."
2. Analyze several of your own personal attitudes, with the purpose of discovering which of them are healthful and passive, and which are unhealthful and negative. Are any of them neutral?
3. Read the editorial comments in some metropolitan daily, and determine what particular "sets," biased or otherwise, activate the writer. Compare with the editorials in a newspaper of a different political complexion. In what respects do you find yourself sympathetic with, opposed to, or indifferent toward, any or all the views expressed?
4. Report upon several instances of faulty mental attitudes that you have recently observed in individuals, stating your reasons for judging them to be unhygienic. Report several instances of salutary mental attitudes similarly observed in your friends or acquaintances.
5. Secure the reactions of several mature persons with respect to each of the following: (1) capital punishment; (2) tipping; (3) censorship; (4) prohibition; (5) cancellation of war debts; (6) organic evolution; (7) the Yellow Peril; (8) the tariff.
6. Make a list of such desirable mental attitudes as you believe the study of each of the following school subjects should, if properly taught, aid in cultivating in the pupil: United States history; geography; English grammar; literature; composition; hygiene; arithmetic; drawing.
7. What seem to you to be the chief reasons why the educative process frequently cultivates, instead of the desirable attitudes you have enumerated under the preceding problem, the following less desirable ones: provincialism; selfishness; narrow-mindedness; carelessness; indifference; disrespect for law; ennui; self-distrust; the inferiority complex?
8. What negative and unwholesome attitudes can you now recall having been in danger of contracting in your own past elementary- and secondary-school experience? Where did the fault lie principally?
9. Can you discover among your personal attitudes or mind sets any for which you seem to have an hereditary predisposition? Are they hygienic or unhygienic?
10. Rank yourself on the scale of 10 in each of the following attitudes: (1) ambition to succeed; (2) world sympathies; (3) religious tolerances; (4) truthfulness; (5) observance of social convention.

CHAPTER II

THE HYGIENE OF PERFORMANCE

The meaning of hygienic performance. In the preceding chapter we were concerned primarily with an enumeration and discussion of certain of the fundamental hygienic attitudes or mind sets which it is desirable that the learner shall develop, side by side with the more formal knowledge and skills which he acquires as a matter of course.

In this chapter we purpose to supplement the conclusions therein reached by developing the thesis that there is both an hygienic and an unhygienic procedure in the actual performance of the work of the schoolroom; that there are, in other words, quite apart from the wholesome or unwholesome adjustment which the learner may make to his task, certain highly important details and circumstances which in themselves tend to make the learning procedure either salutary or unsalutary in its reaction upon the mind. These conditions of hygienic learning are equally, as we shall see, the prime conditions of all integrative and constructive work performed by adults outside the schoolroom. Disregard of them here, as in the narrower world of the school, tends not only to detract from the amount and the quality of the performance but — and infinitely more unfortunate than this — tends to set aside some of the most cardinal principles of sound mental hygiene. In the ensuing pages we shall discuss briefly the chiefest of these conditions of wholesome performance on the part of the pupil in the schoolroom.

A definitely set-up goal or end in view. There are few things more tragic in human experience than to behold the

spectacle of an individual who has no definite end or goal in life, but who meanders aimlessly about without chart or compass, never quite able to grapple seriously with anything. The highways, and especially the byways, of men are fairly glutted with this flotsam and jetsam of humanity, roving about in restless uncertainty. Some have great wealth, some equally great poverty; some are young, some are old; some are bright, some are stupid. The only respect in which they are all similar is in the purposelessness and aimlessness with which they envisage and participate in the great drama.

There is no more steady and integrating force in an individual's entire experience than is contributed by his own awareness of a clear and tangible objective which he has resolved to attain. It may be a home, or a career, or an education, or some other distinction — no matter: so long as the goal that beckons is worthy, it becomes a most salutary and wholesome influence in the mental stability of him who aspires to achieve it. The presence or absence of such a burning purpose in one's everyday life often means the difference between a positive, well-integrated, and wholesome personality and a negative and unwholesome one.

Too much of the work of the schoolroom lacks precisely this definiteness and clearness of objective, so far at least as the learner is concerned. The goals may be sharply defined and tangible in the mind of the teacher, but they are often hazy and indistinct in the pupil's mind. The learner may realize faintly the existence of a vital objective in his school work — promotion, or graduation — but at the same time be very uncertain as to the intermediate goals and objectives of a week's assignment in arithmetic, or a day's assignment in geography. Few people, as Pyle suggests,¹ are willing to work in the dark; yet we frequently compel

¹ Pyle, W. H.: *The Psychology of Learning*, p. 61.

children so to do because we fail to hold constantly before them a recognizable and an unfaltering objective. In extra-school life, the activities in which the child engages by no means lack this fundamental. From joining in the boisterous game on the playground to setting up the construction of a radio receiving set, and from running errands to the store to replenishing the wood box and the coal hod, each activity is definite, meaningful, and plainly envisaged; its importance and relationships are clear. Not so, however, with much spelling and history, and with more grammar and arithmetic.

Now the most reprehensible part of this whole matter is from the standpoint of mental hygiene, that for tasks which appear meaningless, and for problems that seem to be aimed at nothing in particular, the child learner is in grave danger of losing all respect. An end-goal that is so beclouded in the mists of faulty pedagogy and defective motivation as to be invisible to the learner might just as well actually not exist as to exist in penumbra. From inability to perceive the objective it is but a step to a condition of skepticism regarding the real existence of one, and it is such a short step that no learner is too immature to hazard it. It is important, therefore, if children are to develop that businesslike and aggressive attitude toward their daily tasks which is greatly to be desired in the interest of good mental hygiene, that they have constantly before them clear and distinct objectives. Lacking such awareness of the end and purpose of an assigned task, the learner is in danger of developing an indifferent and cynical attitude toward it, and consequently of being content with half-hearted performance. Both of these eventualities are extremely reprehensible, yet they are by no means uncommon. Indeed it is possible that the severest criticism the mental hygienist can make of the ordinary schoolroom influence is its wide-

spread tendency to promote in young people in the first place indifference and ennui with respect to their tasks, and in the second place, carelessness and a satisfied mediocrity in the performance of them. There could be no less wholesome preparation for a vigorous and active life beyond the schoolroom than this.

Demonstrable progress toward the goal set up. But the mere awareness of an objective, important though it obviously is, is not enough; nor is it sufficient that the learner shall keep himself busily at work. Of equal importance is it that he shall make definite and measurable progress toward his goal. How many learners who feel that they are on their way and know where they are going, really feel the satisfaction of knowing the rate at which they are moving toward their various objectives in grammar, in composition, in spelling, in penmanship, in arithmetic, in geography, in hygiene, and in all the rest of the subjects which they pursue!

In the experience of grown-up people outside the school there is nothing more conducive both to earnest continuance of effort and to mental equanimity and poise than the certainty of the progress which one is making in his work. Like the Village Blacksmith, who "each morning saw some task begun, each evening saw its close," the meritorious worker is content and serene in the consciousness that he is making demonstrable progress in his trade or occupation. The cheery whistle of the Miller of the Dee could be plainly heard above the noise of grinding by the unhappy monarch passing by. The happy song of the poor laborer who gloried in the consciousness that the fruits of his daily toil gave him "a groschen to lend, and a groschen to spend, and a groschen for a debt that I owe," attracted and taught a worth-while lesson to a cynical and disgruntled king. Happy indeed are they who can see the sweep and the urge

of their own forward movements. It matters little whether one's progress be in digging a trench, or in managing some great business or social enterprise: the thing that counts and that makes for sound mental health is the assurance that one is getting somewhere with the enterprise in which he is engaged. The idler, and the dallier, and the ne'er-do-well get nowhere and achieve nothing; they are no nearer a goal to-day than they were yesterday or last year, and will be no nearer to-morrow or next year. Driving invincibly toward an objective creates mental energy, warms and tempers the emotions, produces self-confidence, and fires ambition. Drifting around in a circle whose circumference never narrows in, however, finds one always marooned on the periphery of life without the ambition or the will to move inward toward the central objective; in such circumstances mental energy is dissipated, the emotions burn themselves out on tinder, one's confidence and respect for himself is destroyed, and his ambition perishes miserably.

Importance of progress to the pupil. In the learning process, as in the life process, positive and sound mental health is correlated with the ever-present awareness of forward movement, of advancement, and of achievement; while unwholesome and unsalutary mental states and attitudes, it is reasonable to believe, are promoted by the day-by-day consciousness of lack of progress and arrestedness. It is unfortunately true that there is much seesawing, much running around in circles, in our school procedures. Goals and objectives may be clear, but they may appear to the discouraged learner to be no nearer as days and perhaps weeks go by. The mind of the child and the youth is especially impatient of the delay and the sidetracking which so commonly intervene between the inception and the completion of a task. "Teacher's some speedy!" exclaimed a sixth-grader recently. "We've been stuck on percentage

all the term." Even drill work such as this can be so conducted as to demonstrate to the class that improvement and progress are being made every day. Indeed the teacher should see to it that the learner is made very frequently aware of the increase in knowledge or in skill which he is achieving.

The recent widespread development of standardized tests, covering every subject in the curriculum, places at the disposal of the teacher a ready instrument both for measuring accurately the progress of her pupils and for demonstrating it to them in no vague or uncertain way. By daily or periodic comparison of the practice score with the score of previous days, or with the age and grade norms, the learner has a continuously unfolding record of the progress which he is making. The construction of tables and the plotting of curves or other figures to show this record graphically serves as one of the strongest incentives for the pupil to put forth his finest efforts in order to keep the progression moving always upward; and the constant self-rivalry thus stimulated is a most wholesome factor in the hygiene of performance. To know definitely, to have tangible evidence of the fact that one's handwriting is several points better than it was last month; that one's ability to grasp the contents of a printed page through silent reading is steadily growing; and that one's skill in various processes in arithmetic is demonstrably greater than it was at the beginning of the term — these are stimulating experiences which no learner should be denied. Similarly, to realize that one has not reached the goals set in these and other school subjects, but that if one's present rate of development continues the objective will be reached in two months, or in six months, or in a year, supplies a challenging motive for continued and determined effort. There is no more certain stimulus to wholesome mental attitudes than that offered

by sure and definite awareness that one is gaining on his objective, and by a demonstrable and graphic amount.

The maintenance of a brisk working speed. Most of the world's work is undoubtedly performed at a rate of speed considerably below the maximum that could be maintained safely by those who are engaged in doing it. Slow and dawdling performance not only limits sharply the output, but, far worse than that, it confirms human beings in habits and attitudes of carelessness, slothfulness, and indolence. All honor and praise to those innumerable workers in every line of human endeavor who throw themselves earnestly and unreservedly into their daily tasks; who are genuinely and honestly tired out when the day's work is done. For the enterprising sewer digger, for the brusque machine worker, for the energetic professional man, and for the driving man of affairs, there is naught from the point of view of mental hygiene save commendation. Abou Ben Adhem, may their tribe increase! Theirs is a salutary and an inspiring mental adjustment; abandon to their daily tasks makes for all that is positive and healthful and wholesome in personality. For those other workers, however, who loaf and loiter through their daily routine, intent only upon the slant of the sun, or the dragging hands of a clock, we can conceive little else but disgust and commiseration. How many homes could be made proud and happy, not to say comfortable and self-respecting, if positive and aggressive attitudes toward their work could be substituted in their supporters for habits of the other sort. Illness, ignorance, and incompetence undoubtedly loom large as contributory factors, but there can be no question but that lazy and indifferent attitudes play equally significant rôles in the creation and the perpetuation of much of the poverty and unhappiness amid which groups of people live. Next to good health and intelligence, perhaps the chief driving force

to the successful life is contributed by the willingness of the individual to maintain a good stiff pace under his load. Sound mental hygiene demands this of everybody up to the reasonably sustainable limit of his ability.

In the schoolroom, where there are assembled all types and degrees of competence and capacity, it is not always easy for the teacher to so manipulate the educative process that every individual will be stimulated to initiate and maintain the brisk pace. There will always be found there, as in life, the dull and the indifferent and the listless. The presence of these problem children should not, however, be allowed to interfere with the maintenance of vigorously active performance on the part of the more intelligent and the more ambitious.

It is an unfortunate commentary on many of our schools of all grades that much of the performance in them takes place at altogether too moderate a pace. Eager and concentrated activity occurs all too rarely, coming into prominence chiefly only in connection with animated drill lessons and occasional problem analysis. Teachers in general, and teachers in training in particular, need to bring themselves to a realization of the hygienic importance of rapid performance in the schoolroom. Most children, it is safe to say, are confirmed by their school experience and training in a large number of characteristic speed habits that are needlessly slow, and that handicap them constantly in their life activities outside the school. Most of us could, with proper effort and practice, for example, increase our rate of reading silently, and without loss of efficiency or comprehension, at least a half, and probably much more than that. Similar improvement might unquestionably be made in the rate at which we write, choose, reach decisions, analyze our problems, embark upon a course of action, and perhaps even marshal and control our ideas. Certainly much in the way

of speeding up our thought-life could have been accomplished by wise teaching while we were yet in the lower schools, even though efforts which we might now as adults put forth would yield less satisfactory returns.

Importance again of the teacher's attitude. What then can the school do to bring about in the learner a desire and even an enthusiasm for striking and holding to a lively pace along the educational pathway? In the first place, it can weed out and revise the course of study in such a way as to make its content infinitely more attractive as well as more practical than it is at the present time; in the second place, it can provide an abundance of equipment and educational paraphernalia that will invite carefulness, interest, and the scientific attitude; and in the third place, it can take fullest advantage of every opportunity to make the physical plant comfortable, attractive, and hygienic — can, in short, set the general stage as intelligently as possible for the learning act.

These items are after all, however, quite extraneous. With the most enlightened course of study, and the most superb equipment, and in the midst of the most helpful of environments, a pupil may still idle and fritter away his days and weeks of school time. Eagerly purposeful activity, engaged in at a high rate of performance, is conditioned upon something more than these — indispensable as they are. There must be great earnestness, great enthusiasms, and great expectations on the part of the teacher. Rapidity of achievement must be both exemplified and expected. Lag-gards and non-conformists must be so far as possible held in line and urged forward. Those naturally slow will have to be spurred mildly, and those naturally quick and resourceful may not at the same time be permitted to lag or falter. Every pupil must perform at the safe maximum of his capacity. Interesting tasks, done spiritedly and even on oc-

casion with enthusiasm, will replace boresome tasks done haltingly and grudgingly. The sprightliness observed frequently in the drill lesson must be transferred so far as possible into lessons of every type and in every subject. Accuracy does not suffer with gathering speed; interest and ambition are almost certain to with lessening speed. In the interest of wholesome and normal mental hygiene, a brisk working speed must be maintained continuously in all the tasks of the schoolroom.

Sustained attention. It has been said that genius is but the power of sustained attention. Whether this be true or not, it is certainly true that the power to maintain fixed attention to a task until it is completed or until the beneficent influence of fatigue makes itself felt in the organism is one of the earmarks of good mental hygiene. Scattered attention, on the other hand, or attention that cannot be bent with reasonable precision and continuity upon the task that is to be done, is not only highly uneconomical but mentally unwholesome as well. Inability to marshal and control one's ideas and to focus them persistently upon the solution of one's problems represents a profound handicap to successful achievement. Incompetence in this function is extremely likely to be found correlated with other negative mental characteristics, such as indifference, indolence, and general shiftlessness.

Roving attention in the schoolroom, unchallenged and unstayed by worthy enterprise and keen interests, is an ill preparation for those positive mental controls which we would like the adult citizen and worker not only to be able to exercise, but to find pleasure and satisfaction and profit in exercising. Among the more unfortunate agents in the educative process that operate to discourage the pupil-learners from the developing of fixed habits of concentration and sustained attention to their work, two only may be cited

here briefly. Lack of any vital interest in and concern for the school unquestionably heads the list of causes for the poor habits of concentration found commonly among pupils. In a game, or in a self-imposed task outside the shadows of the school, there are rarely found careless and indifferent attitudes in children: it is doubtful if any more highly concentrated attention is possible than that riveted by children upon some absorbing sport or other extra-school performance which seems to them important or worthy. It appears that the more cleverly the tasks of the school are related to the tasks of life the more the learners will be tempted to accept them as worth while, and consequently to attack them with eagerness and with firmly controlled attention.

Lack of knowledge of how to set about a task and how to proceed with it is undoubtedly another strong reason for scattered attention among school children. Not having been taught how to study, they find themselves often at a loss how to attack the daily tasks. At best, the study-procedure habits which they set up eventually through trial and error are usually highly uneconomical, and often distinctly fatiguing and annoying. The teacher should consider it one of her major problems to help the learner to develop economical and effective methods of study. This should not mean merely the intelligent handling of a textbook or a book of reference; it should include, in addition to this art, acquisition of increasing ability to size up a problem, to plan a wise method of attacking it, to investigate it rationally, and to comprehend and formulate the results obtained. Lacking skill along these lines, a learner can hardly be expected to maintain an actively and persistently attentive attitude toward the problems that confront him. The bare awareness of a piece of work to be done is likely to be sufficient under such circumstances to induce both inattention and ennui in a child. Certainly this is everything but

desirable and wholesome in the learner's mental adjustment.

Thoroughness and mastery in performance. Slack and slipshod performance, in whatever field it occurs, is a pretty good indication of the weakness and unwholesomeness of the mental reactions of the performer. No one has much admiration for the careless worker, whether he be a janitor, or a salesman, or a doctor. The respect and approval of the world are for those who are methodical and precise in their work, who are accurate and scientific in their analyses, and who have a reputation for getting at the bottom of and mastering the problems that beset their pathway. The world has too many people who are the reverse of this; they are inaccurate and careless in their work; errors multiply wherever they are; they rarely or never take the trouble to study their tasks intelligently; they are content with the most cursory and superficial appraisal of the situation; some one must constantly watch them and check up on their errors; they remain necessarily on low levels of performance for the sufficient reason that they lack the character to enlist themselves unequivocally and unreservedly in the work they have to do. This is as eminently bad from the viewpoint of hygiene as it is from that of economics. The attitude of mastery and thoroughness undoubtedly has a toning and a bracing effect upon the mind which the man who is a stranger to these traits inevitably lacks. Self-confidence, energy, and the will to achieve go with thoroughness, while with its opposite go, if not actual self-distrust and weakness, certainly purposelessness and indecision.

The influence of the schoolroom should, in the interest of sound mental hygiene, make itself felt unmistakably against indolent habits and attitudes of carelessness, inaccuracy, and inefficiency. It is quite as important to foster in the learner consciousness of increasing power of

mastery over the tasks that offer themselves for performance as of increasing knowledge and specific information. The teacher needs to feel keenly that it is hygienically disastrous to bring to pass in the learner confirmed habits of imprecision, of slothfulness, of inaccuracy, of loose and slipshod work. The educative process at every stage must be favorable to the development of straight thinking, of accurate and exhaustive investigation, of the scholarly attitude of thoroughness and completeness in connection with whatever subject or problem is being investigated. There is no doubt of the fact that a real danger exists in many schools that unfortunate intellectual habits and attitudes may be created through disregard of this fundamental principle of mental hygiene. The pupils should be taught, through precept and example, to be dissatisfied with anything less than as honest and masterful a product of study, investigation or analysis as they are capable of achieving. Children thus trained will not only be efficient workmen, but they will also confirm themselves in highly desirable mental attitudes as well.

Intelligent and increasing self-direction. Many a fine man is in some respects a slave. The mere circumstance that before the law he is subject to no one's will save his own is no indication of his ability to control and supervise his own activities. Especially is this the case with many a worker, who is more or less constantly watched by an overseer or foreman, and whose hourly performance is subject to the scrutiny, criticism, and direction of some one else. In the work of the world much of the labor done is of such a nature as to necessitate the control of some individuals by others. There can be little doubt of the fact, however, that not only is the best work likely to be done by those who both plan and execute, but that, from the standpoint of mental hygiene, self-direction is far more to be desired than supervi-

sion.¹ The former makes for originality, satisfaction, and the will to achieve; the latter may easily make for indifference, unhappiness, slothfulness, and even deceit. Much of the social unrest among industrial workers can probably be traced directly to the inevitable reaction of toilers who feel themselves to be little more than cogs in the great wheel of industry, engaged under the eye of the overseer in turning out a product for the planning and creation of which they have had too little responsibility. It is irksome and tedious, not to say discouraging, never to be called upon to weave one's self into the fabric, or to stamp one's personality into the shoe. The mechanization of manufacturing processes and the standardization of the materials used in them tend disconcertingly to reduce the worker to a level but little raised above that of the whirring wheels and the hissing steam. The pride and elation experienced by the medieval guild worker — and by the contemporary hand workers who still survive in some industries — when they have produced something beautiful and something upon which they themselves have wrought independently, is not to be compared with the indifference with which too often the modern factory hand regards the daily output of his machine.

The case is no different in the schoolroom. Substitute for the man who is his own boss the learner who is at least in a measure planning and executing his own problems, and you have a schoolroom parallel in which the individual concerned is infinitely more contented and eager than is the case where he merely follows the instructions or thinks after her the thoughts of a teacher. Fundamentally, the reason back of the occasional striking success that attends the use of the "project" method in education is due to the circumstance that it often tends to promote a high degree of independent

¹ This is on the assumption, of course, that the individual has a personal interest and pride in the work which he does.

effort and self-direction among the learners. The best teaching has always obtained whenever and wherever problematic situations have been created or proposed, and the learners have been encouraged to tackle them with a reasonable exercise of their own originality and ingenuity. In his monumental work on mental hygiene, Dr. Burnham makes ¹ freedom in the working-out of one's purposes and goals one of the three indispensable factors in sound mental hygiene, the two others being, first, the goal itself, and second, a plan whereby to accomplish it. The recent success achieved in many types of schools operating on the Dalton Laboratory Plan ² rests largely on the individual responsibility, freedom, and self-direction which are permitted the learners in the performance of the "contracts."

From the viewpoint of mental hygiene, the pupil learner who is subjected incessantly to direction and advice by the teacher lacks opportunity to do very much thinking for himself, and consequently is brought to no proper realization of his own capacities and abilities. He does not learn to check himself up continually, and to match himself with his mates in the performance of tasks which require careful planning and honest effort. The tendency in schools where this relationship exists between teachers and learners is for the pupils to become passive and neutral in their general attitudes, and to react to their schoolroom tasks with little sprightliness and ambition to succeed in them. Pupils who, on the other hand, are encouraged progressively to rely upon their own resources to the limit, and to identify themselves positively and aggressively with their school work, are in a fair way of developing energy, resourcefulness and self-confidence, and such other desirable attitudes as grow out of managing and directing one's own study and research. Wise

¹ William H. Burnham: *The Normal Mind*.

² See *The Dalton Plan*, by Evelyn Dewey.

and growing self-direction in the schoolroom makes for successful self-direction beyond it, as well as for forcefulness, determination, and purposefulness of character and personality. These are highly desirable qualities in the mental health of any individual.

Freshness as opposed to fatigue and ennui. It is a well-known fact that continuous muscular exertion uses up glycogen, and that the more strenuous the exercise the more rapidly will the available glycogen be depleted. Mental work, on the other hand, does not involve the consumption of the nutritive substance at anything like the rate at which it is used up in muscular activity. It is true, of course, that the large muscles of the back, shoulders, and chest must react continuously to hold the body in its correct position, and that the fine muscles of the eyes must similarly be active in mental work; the actual fatigue thus generated has, however, been shown to be relatively slight.

Nevertheless, what appears amazingly like fatigue overtakes most of us after we have been engaged steadily in mental work for some time, and children in the schoolroom often manifest early in the day symptoms like those which we are accustomed to associate with fatigue. And yet Thorndike affirms that children have too little to do rather than too much, which is no doubt the case. What passes for fatigue in the schoolroom is frequently nothing more nor less than *ennui*. In the world outside the schoolroom we are continually experiencing states of boredom and ennui. The novel that we have been reading for an hour, the articles in the current numbers of our magazines, the conversation with an acquaintance, the very comfort of an easy-chair and a cozy fire — all these situations engender symptoms of ennui in us after a brief time, and we are prone to change the nature of our occupation for a while until we feel again refreshed. We have been actually bored by our activity, not

fatigued by it. It is important that we learn to distinguish clearly between these two conditions of the psycho-physical organism.

In the schoolroom, the muscular inactivity, the routine performance of an accustomed process in the accustomed way, the succession of one routine after another, tend to produce this same ennui, and to produce it more quickly perhaps than would be the case if the learners were adults. In many schoolrooms life is little more than a series of one state of ennui after another. Variety and interest and challenge are lacking, and there is nothing to keep the learners busily and aggressively at work.

Ennui has substantially the same influence over the learner as has genuine fatigue. In its grip he languishes, loses interest, wastes time, grows careless and indifferent, and his performance suffers accordingly. But worse than these ill effects of ennui are the negative adjustments which the pupil is led to make under its fell influence. These include such undesirable mental attitudes as irresponsibility, dislike for and perhaps rebellion against the present task, inattention, delusions of weariness, and general disinclination for mental and intellectual exertion. Too-frequent and long-continued periods of spiritless and apathetic languor in the schoolroom can hardly fail to make for anything but the positive and aggressive mental adjustments which it is desirable in the interests of mental hygiene that every one should cultivate in himself. Yet how many pupils in our schools are being trained rather in languid indifference than in the power and the will to achieve!

Pleasantness. Our work is kept attractive to us only by the agreeableness which we are able to find in it. There is no worker like a happy worker, regardless of the nature of the labor which he performs. In the great seething world beyond the school there are innumerable evidences of the

tragic and chronic unhappiness and even misery of spirit with which vast numbers of individuals perform their daily tasks. There are fortunately also innumerable examples of toilers who either find real happiness in their work, or else take a grim satisfaction in giving of their best and derive pleasure from the knowledge that whatever their hands find to do is done with their might — worthily, uncomplainingly, unstintedly. Pleasurableness, so far as adaptability and abandon to one's work and the embracing of a wise and sanguine philosophy of life can create it, represents one of the most desirable of all adjustments in the worker, not only from the standpoint of mental hygiene but from all other standpoints as well.

Pleasurableness in the work of the school is as important to the mental hygiene of the pupil as it is to that of the adult worker outside. There seems to be no good reason why the educative process should be disagreeable and unpleasant to those who are passing through it. Life itself is not miserable to most of us, and school life should hardly be found so by the children who are living it. Yet despite the educational philosophy which postulates interest, and the psychology which studies to create it, much of the routine of the learning process remains in many schools uninteresting and unchallenging, and the mental attitudes created are quite the reverse of healthful and wholesome. There is no clearer duty constantly before the teacher than that of seeing to it that pleasurableness shall accompany the learning process just as far as it can possibly be oriented in that direction. Strict and persistent attention to the analysis of objectives, motivation, the connecting of school with life, and the creation of stimulating problems — these should be of primary concern to the teacher who would make school life pleasurable to the learner and so engender in him those qualities of zeal, ambition, and determination which are indispensable to mental hygiene and vigor.

Enough to do. There are few things more tragic in the grown-up world than the tragedy of having nothing to do. The writer recalls vividly a recent sojourn in a country village over a mid-week holiday, in which his attention was drawn to the spectacle of the individual shopkeepers and tradesmen of the village sitting all day on the steps in front of their several places of business, dozing idly in the sunshine. So used were they to their tasks that they could not think what to do with themselves on a holiday; several of them were heard to remark, in the course of the afternoon, that they were glad holidays came no oftener than they did. The lives of these men were filled every day with hard work, as they ought to be. Contrast with these honest and industrious people who rarely have a day off and almost never a vacation, those other members of the human family who continually run to and fro seeking ever some new means of "killing time," who have no work to do in the world, and whose lives are given over to nothing more absorbing than the perennial search after escape from the boredom of idleness. Their difficulty is that they have really nothing to do, or at least not enough to do to keep themselves busy and happy.

In a later chapter (see Chapter VII) we shall have occasion to devote some consideration to the problem of the naturally bright child who does not have enough work to do to keep him actively engaged throughout the school day. At this point, it is sufficient to recognize the fact that too little work supplied for pupils in the schoolroom drives them to the same search after diversions and time-killers and other escapes from the boredom of idleness that adults outside the schoolroom are prone to engage in. Obviously, it is likely to be the naturally bright child who offends in this way, since it does not take him so long a time to do his daily work as it does the slower pupil, and hence he finds a con-

siderable amount of unoccupied time at his disposal. It is frequently true also that there is not enough work supplied the average pupils to keep them busily engaged throughout the day; hence they too become innocent offenders in the search after supplementary occupation.

Now the type of supplementary occupation which children who are thus not kept busy commonly engage upon is likely to be highly undesirable from the standpoint of mental hygiene. It is certain to range all the way from listless and idle daydreaming to positive mischief and deceit. Attitudes of indifference and carelessness, at the one extreme, and of noncoöperation, deception, and trickery, at the other, are the inevitable fruit. All kinds of misrepresentation are likely to be resorted to by the brighter children to cover up their real nonconformity. The school in which there is insufficient to do becomes, or is in danger of becoming, a veritable school for stratagem and artifice. Honesty and sincerity go rather with the consciousness of a pressing multitude of tasks to be accomplished than with the consciousness that after all one has little to do.

Successful achievement. Where is there to be found a happy and contented failure? The man or woman who is constantly failing to reach goals and objectives becomes gloomy, morose, hypochondriacal, and many a one who sees failure looming ahead across his pathway takes his own life rather than meet the inevitable. There is no urge or impulse to achieve on the part of one who is continually and habitually unsuccessful. To the disappointment which comes occasionally the normally resilient individual will react by putting forth redoubled effort, in the hope of eventual success. If at first one does not succeed it is human and sensible to try, try again; but if one's initial failures are followed up repeatedly and cumulatively by other failures, he is a rare individual indeed who will keep on trying again.

Frequent success or strong promise of ultimate success is an essential condition of determined and purposive effort.

In no sense is this more true than when applied to the educative process, as Dr. Burnham has repeatedly shown.¹ The pupil-learner, lacking the adult power and inclination to work with long-range objectives and to neglect and rise above occasional failures and disappointments, needs especially the stimulation which comes from frequent and demonstrable success in his schoolroom tasks. As we shall come to understand better in later chapters, there are many perplexing elements in our school organization and practice which make it difficult to provide for successful performance on the part of every learner — slow and rapid alike. Nevertheless this must be a goal continually to be borne in mind by all teachers. From the viewpoint of the mental hygiene of the child, the effect of unsuccessful performance is highly reprehensible, tending as it invariably does in most children to cultivate attitudes of self-distrust, fear, disparagement, and the inferiority complex. Successful performance, on the other hand, makes for just the opposite of these negative adjustments, and stimulates in the learner those attitudes of confidence, assurance, and determination which the mental hygienist thinks of as being indispensable to wholesome and healthful adjustment to one's tasks and purposes, and the lively prosecution of one's objectives in life. Better classification and grading of pupils, more thorough health supervision, more and better individual analysis, wiser educational counseling, better adapted courses of study, and a corps of teachers sympathetically aware of the relationship between success achieved and effort put forth, are among the more prominent factors which we may hope will bring about in time a much needed improvement along these lines.

¹ Burnham, W. H.: *The Normal Mind*.

TOPICS FOR SPECIAL STUDY AND REPORT

1. Make a list of twenty-five desirable life-objectives.
2. Recall as vividly as possible your elementary and high-school experience in the various subjects, with the view of determining the clarity and vividness of objectives in your own mind at the time when you were pursuing these studies.
3. Suggest several striking ways in which a teacher might make it apparent to her class that its members were actually making demonstrable progress in their several studies.
4. Does it seem to you that you would be able with practice to increase your present rate of silent reading to any appreciable extent, without loss in comprehension? Plan out a long-time experiment which would prove whether or not your opinion is correct.
5. Make a list of as many causes of roving attention in the schoolroom as you can think of. Show how each of these might be removed with sufficient effort and thought on the part of the teacher.
6. Rank yourself as fairly as possible on a scale of 10 in each of the following characteristics: (1) thoroughness; (2) ability to direct your own procedure; (3) speed of performance of the day's work; (4) pleasurable derived from the day's work.
7. Review with some care the first few chapters in Miss Dewey's book, *The Dalton Laboratory Plan*, with the purpose of discovering the extent to which the plan appears to foster interested self-direction on the part of the learner.
8. Review the little book on *The Project Method*, by Hosic and Chase and be prepared to report upon the relationship of the method to mental hygiene.
9. Recall what subjects and what teachers have influenced you most along the line of independent, self-directed work. What subjects and teachers have influenced you least in this respect?
10. What seem to be the principal reasons for the appearance of boredom and ennui in school children? What relation does this condition bear to true fatigue?
11. Do you feel that you always had enough to do in your elementary and secondary school work? If not, what effect did the awareness that too little was expected of a pupil have upon you?

CHAPTER III

THE MENTAL HYGIENE OF THE SCHOOL DAY

Scope of the present chapter. In the two preceding chapters we have been considering the relationship of the mental attitude and of certain concomitants of performance to the general mental health of the individual, and more particularly of the learner. In the present chapter we purpose to analyze certain routine factors in the school day which may be so controlled as to make for mental hygiene and which, neglected, may readily promote the opposite of sound adjustment. Prominent among such factors are fatigue and fatiguability; the hygiene of program and the sequence of studies; the length of class periods; the hygiene of pauses and recesses; the hygiene of opening exercises; the matter of comfortable surroundings; and the general problem of control and discipline. To each of these important questions we shall pay some attention at this point in our study.

Experimental studies of fatigue. One of the moot questions in schoolroom procedure is the rôle played by mental fatigue during the school hours, and the relative fitness of the learner to profit from his study at one hour in the day as compared with some other hour earlier or later. Unfortunately, the experimental evidence is far from being unanimous in the matter, and is often quite at variance with the practical experience and general naïve opinion of teachers and school administrators. A few of the more important studies reported will be mentioned briefly below.

Pyle set out ¹ to answer the question: Is the capacity of school children to learn in the late afternoon any less than it is at the beginning of the school day? The Whipple Digit-

¹ Pyle, W. H.: *The Psychology of Learning*, pp. 250-51.

Symbol substitution test was used, the subjects being city school children in three States. His general conclusion was that learning ability was only two per cent less just before the afternoon dismissal than what it had been in the early morning period.

Gates, on the other hand, working with fifth- and sixth-grade school children, and employing a considerable variety of tests to measure ability in certain fundamental mathematical processes, memory, recognition, completion, motor control, etc., found ¹ efficiency in the intellectual functions highest in the last morning period, considerably lower at one o'clock, and improving up to three o'clock, after which there occurred a falling off again; motor functions, however, showed improvement fairly evenly throughout the day.

Winch, a London investigator, found ² in his 1911 experiment, in which one group of children solved arithmetic problems in an early morning period while another group solved equivalent problems in the late afternoon, that the early morning workers in the eleven-year group gained eleven per cent in proficiency while the late afternoon workers gained about eight per cent. From these results Winch concluded that fatigue was somewhat greater toward the end of the school day than it was at the beginning, since improvement was lower in the late period and higher in the early. The same experiment with children of the six- and seven-year groups yielded a gain of twelve per cent in the morning class and practically nothing in the afternoon class. Using thirteen-year-old children as subjects, he found very little difference in improvability as between the early class and the late class, the former having a very slight lead over the latter.

¹ Gates, A. I.: "Diurnal Variations in Memory and Association"; in *Univ. of Cal. Publications in Psychology*, vol. I, no. 5, 1916, p. 323.

² Winch, W. H.: "Mental Fatigue in Day School Children as Measured by Immediate Memory"; in *British Journal of Psychology*, vol. IV, 1911.

In general, it appeared from this study that mental work is less and less modified by fatigue throughout the school day as children increase in age.

In his 1913 study, Winch reached conclusions ¹ that were "in flat contradiction" to the 1911 results. For this later study, London school children in Standard III, Standard VIII, and in an infant school, were used as subjects. The procedure was to divide each class studied into two sections, and assign one to work arithmetic problems in the early morning session (from 9:40 until 10:05), and the other to do identical work in the late morning (from 11:25 to 11:50). In general, Winch concluded from this study that better work was done in the later than in the earlier hour, the difference in improvability being about five to six per cent in favor of the former. In a single case only did the investigator find an exception. It developed that in one school located in a poor district, where the children were wont to rise early in the morning and do considerable work before school time, the earlier hour yielded better results than did the later one.

Miss Arai, working under Dr. Thorndike, after reaching her approximate limit through previous practice, performed ² the mental multiplication of four-place numbers continuously from 11 A.M. to 11 P.M., during four successive days, "with the one desire to get true fatigue curves." She found her efficiency decreased only slightly after the first few hours of this highly taxing performance, and only about one half at the close of the strenuous twelve-hour period.

Essentially similar results were achieved ³ by Holling-

¹ Winch, W. H.: "Mental Adaptation During the School Day as Measured by Arithmetical Reasoning"; in *Journal of Educational Psychology*, vol. iv, 1913, p. 17.

² Arai, T.: *Mental Fatigue*. Columbia University Contributions to Education, no. 54.

³ Hollingworth, H. L.: "Variations in Efficiency during the Working Day"; in *Psychological Review*, vol. xxi, 1914, pp. 473 ff.

worth, working with ten adult subjects, "all receiving compensation for their work and under oath to do their best, prizes being offered to those who excelled." The task set them consisted in tapping, aiming, recognizing colors, naming opposites, performing mental addition of two-place numbers, maintaining steadiness, and making certain discriminative reactions. The experiment was continued over a period of ten days, of twelve hours each. The more strictly mental performances showed a decreasing efficiency, amounting at the end of the day to from 10 per cent to 15 per cent; the motor performance, on the other hand, showed an actual facilitation under continuous work.

Working with school children, Heck undertook¹ to measure the amount and accuracy of performance of pupils in the four fundamental arithmetical processes at four points during the school day: at 9:10; at 11:05; at 1:10; and at 2:30. The investigator found that there was a slight increase in the amount of work done at each period over the preceding, the gross gain for the day being 3.31 units of work. In the matter of accuracy of performance, however, he found a loss of 1.32 per cent during the forenoon hours, and a loss of 0.71 per cent during the afternoon hours, with the general level of achievement slightly lower in the latter than in the former case. The accuracy at 1:10 was 0.09 per cent higher than at 11:05 but 1.23 per cent lower than at 9:10.

The list of experiments performed with the purpose of finding out definite facts about the nature and progress of fatigue during and as a result of performance is an unusually long one, and there would be no value in multiplying these varied studies here. While there is more or less disagreement in the results obtained by different investigators, due in part no doubt to the nature of the practice material, to

¹ Heck, W. H.: *A Study of Mental Fatigue*.

the "mind set" of the subjects, as well as to their age and interests, and to the methodology and technique involved, it may be stated with reasonable certitude that, as measured by the amount and accuracy of accomplishment under experimental conditions and control, the amount of genuine fatigue engendered within the limits of a school day is not ordinarily very great.

Limitations to all fatigue studies. Amount and accuracy of accomplishment is not, however, a sufficient index, taken by itself, of the presence or absence of fatigue in a school child. Indeed, there are certain factors inherent in the experimental work that has been done into the nature of fatigue which will have to be taken into account. In the first place, laboratory tests made upon adult subjects working continuously at intellectual tasks are unsafe bases for making the inference that the results obtained apply equally to children in the schoolroom. Absorbing interest in the outcome of the specific experiment — typified for example by Miss Arai's desire to "get true fatigue curves," taken together with the determination and enthusiasm that characterize the experimental attitude, tend to modify in no small measure the schoolroom applicability of results obtained from mature laboratory subjects. In the second place, actual schoolroom tests may readily lead to false conclusions concerning the universal nature and course of the fatigue curve for several reasons, the most obvious of which — and the one generally overlooked by the investigator — has to do with the psychological condition of the pupils at the time the practice is given. For example, practice material given children, say in arithmetic at 11:30 o'clock, may find them in a wholly different psychological condition from that of those to whom identical material is given at 9:30 o'clock. By virtue of previous participation in the routine work of the schoolroom during the morning,

mental attitudes either of agreeableness or of disagreeableness, of enthusiasm or of passiveness, of ennui and boredom or of elation, of confidence or of its opposite, of coöperation or noncoöperation with the teacher, may have been developed which will affect profoundly the test performance in the late morning; thus the results may yield no reliable index of the actual rest-fatigue condition of the pupils.

Moreover, some school subjects are generally conceded to have higher fatigue coefficients than others; arithmetic and formal grammar, for example, being deemed to be more fatiguing than penmanship, language, and geography. Consequently, one experimenter may conclude from results achieved by pupils at 11:30, who have previously had lessons in subjects of high fatigue value, that efficiency decreases during the forenoon hours; while another experimenter, whose subjects have been engaged upon studies of lower fatigue value, may insist that there is no loss in efficiency during the forenoon hours, or indeed that there is even a slight gain. Similar erroneous conclusions may be drawn from periodic tests made at intervals throughout the entire day, depending upon a different sequence of studies preceding each test made. The amount of actual error thus creeping in is easily sufficient to reverse the general conclusions reached in a given study of fatiguability during the school day. More exact and careful experimentation must be awaited before we can know with any definiteness the rôle played cumulatively by fatigue in the schoolroom.

Fatigue and pseudo-fatigue. In the midst of the experimental inconclusiveness and disagreement concerning the incidence and progress of fatigue during the course of the school day, it behooves the mental hygienist to consider these matters from the practical standpoint of mental health.

It is highly important that the difference between actual

fatigue and pseudo-fatigue be understood, especially since it is undoubtedly the latter that occurs principally in the schoolroom. In genuine fatigue there has been a heavy expenditure of neuro-muscular energy that has depleted the body stores and clogged the blood and excretory systems with toxic materials that can only be removed by a period of rest and recuperation. Pseudo-fatigue, however, is merely a masquerader wearing the guise of genuine fatigue and deceiving completely both the victim and the observer. There is little or no depletion of nutritive elements in pseudo-fatigue, and no particular accumulation of waste products; one merely "feels" tired. This condition may be due to a considerable number of possible factors, the most striking of which is merely a lack of interest in the task at hand.

Interest and fatigue. We have noted in a preceding chapter the circumstance that interest in one's task is of cardinal importance for mental health. We may add with equal truthfulness that interest in the task is likewise a potent and effective inhibitor of fatigue, and, of course, of pseudo-fatigue. It is of relatively slight importance whether history, or arithmetic, or language work comes at 10:00, or 11:00, or at 2:00, or 3:00, provided only the subjects make an appeal to the interests and ambition of the learners. Lacking the stimulus of interest, the pupils may be for all practical purposes and to all appearances "tired out" and "stale" before mid-forenoon. Their condition is analogous to one of genuine fatigue; they are dull, unresponsive, restless, heavy. The naïve observer would be inclined to commiserate with them over their unhappy lot, and perchance chide their teacher for a hard driver. As a matter of fact, it is extremely doubtful whether real fatigue in the sense of tiredness from mental exertion is ever found in the conventional schoolroom.

But the mental hygienist is interested in the conditions which produce the almost universal pseudo-fatigue found among school children, for the effect of such a condition is highly detrimental to sound mental health, even though it may be wholly different from genuine fatigue. Besides being often traceable to lack of any compelling interest in the work of the school, pseudo-fatigue is frequently also due to inner conflicts existing in the mind of the pupil, as for example dread of incurring the teacher's displeasure or arousing her sarcasm; anger at what is interpreted as her unfairness; jealousy of the performance of another pupil; bitterness at one's failures; antagonisms to one's work, etc. If long continued or habitual, inner conflicts of this sort may easily become no less depletive of nervous energy than the hardest mental work, and hence may lead to a state of actual fatigue in the victim. The only safeguard against such an unfortunate outcome lies in preventing the inner conflict, which can be done only by making sure that the schoolroom task for every pupil is shot through and through with interest and genuine appeal.

Mental fatigue due often to muscular strain. Fortunately such actual fatigue as is engendered in the average pupil by his schoolroom activity is probably chiefly muscular in its ultimate nature. Prolonged use of the eyes, for example, means continuous and delicate innervation of the oculo-motor and ciliary muscles in adjusting to the position of the printed page. Similarly, writing involves constant innervation of the forearm and hand muscles, as well as the larger muscles of the shoulder and back; the attentive attitude and the schoolroom posture commonly insisted upon necessitate a continuous discharge of nervous energy into most of the skeletal muscles of the trunk and back, etc. Each of these activities occurs more or less constantly in the schoolroom, and it is reasonable to believe that whatever

fatigue develops in the pupil is attributable in large measure to muscular strain of this sort.

If his tasks are wanting in interest, the pupil manifests speedily all the symptoms of fatigue, and may actually feel tired out. One's feelings are, however, as has been shown over and over again in the experimental work, no reliable index of his real fatigue condition. The presence of interest operates in some strange way to dissipate both the awareness and even the presence of muscular strain attendant upon the general schoolroom activities. Pseudo-fatigue is largely if not completely a psychological rather than a physiological condition.

Rapid performance retards the onset of fatigue. Within certain obvious limits, it has been shown by Amor, the French scientist, and others, that the amount of energy needed to perform a given piece of work diminishes with the increase in the rate of muscular contraction. This phenomenon is not unlike the experience of automobilists who find that the amount of gasoline consumed by their motors on the city street and in slow traffic is considerably greater than it is when they are driving at a moderately high rate of speed on open and unobstructed highways. There is better adjustment and there are fewer inhibitions in the latter circumstance than in the former.

The same phenomenon obtains also in connection with mental work. Thorndike, experimenting with sixteen individuals engaged upon the mental multiplication of three-place numbers over a period ranging from three to twelve hours, noted ¹ that the most efficient and rapid workers fatigued less than the less efficient and slow workers. The inference for mental hygiene is obvious; given an attitude of mind or a condition of dexterity in the individual which makes for slow performance, his fatigue rate is high; given,

¹ Thorndike, E. L.: *Journal of Educational Psychology*, vol. 2, 1911.

on the other hand, a subject whose attitude and dexterousness express themselves in rapid performance, and his fatigue rate will be found to be low. In the schoolroom, high fatiguability, at least of the pseudo type, appears to hover over slow and lock-step work, descending early in the day upon the learners. It is essential in the interest of mental hygiene that the performance of children shall be rapid and consuming, always with the reservation of course that excessive speed may become as fatiguing to the child as it is to the adult, and that in consequence the teacher should be on her guard vigilantly not to so manipulate the educational stage that the actors are overstimulated and impelled to excessive performance that is very long continued.

Habituated and non-habituated work. Still another conclusion established by the experimental work suggests that fatigue comes much more quickly in non-habituated than in habituated performance. In other words, work that is new to the extent that unfamiliar movements, coördinations, etc., must be developed before any proficiency can obtain has a higher fatigue index than does work in the accomplishment of which the necessary habits and adjustments have been previously mastered. Every adult who has learned new skills can readily illustrate the truth of this principle. In the schoolroom, it is important that the teacher shall appreciate the difference between habituated and non-habituated work in their relative effect upon the fatiguability of the learners. Sensing the significance of this matter, she will understand the need of adapting the length of the practice period and the method employed to the nature of the task. Overlong attention to doing a new kind of work is highly fatiguing, whereas work that is reasonably familiar can safely be continued over a much longer period, especially if interest can be maintained.

Life freshest in the morning. Whatever be the ultimate

results of laboratory experimentation, it is a safe general principle for the practical schoolman to accept that the physiological organism of the learner is at its best in the earlier hours of the day. By dint of the power of habit, or of the zest or determination of maturity, grown-up subjects may show little wear and tear at the end of the day. Children, however, having less power of self-direction and less permanent motives, may quite possibly be weary by the end of the school day, and glad indeed, and even refreshed, when it is over and they can find opportunity for larger physical activities in the open. In the morning — say, before ten o'clock — the inertia of sleep has worn away, the digestion of the morning meal is partially concluded, the fatigue accumulated during the preceding day has been completely lost, and the potentialities of the whole organism are probably at their best. Mental hygiene would require the teacher to so arrange her program that the heavy work of the day may come early, and to so manipulate the learning stage throughout the day by dint of skillful motivation and the judicious introduction of rest periods as to turn the players out at the end of the day with plenty of reserve energy still available for the extra-school activities that will intervene before bedtime.

Sequence of studies. Accepting the data of the experimentalists, many school program makers are tending toward the idea that it makes little or no difference at what time the subjects of the curriculum are presented, since the capacity of the learners varies but little throughout the day. This, in general, seems to be a wise trend. On the other hand, teachers of long experience are convinced that the more difficult studies should be got out of the way while the children are freshest. Only five of some fifty-odd mature teachers questioned recently by the author felt that it made very little difference when subjects actually came. Most of the

others were quite emphatic in their opinion that the difficult subjects should come in the morning.

In general, it will continue to be a wise policy, wherever possible, to arrange the school program with this practical principle in mind, especially since there is no evidence that a different arrangement is any better. Mathematics, dictation, foreign language, geography, and history are generally conceived to have higher fatigue quotients than natural science, singing, drawing, and language. Inasmuch also as motor functions are somewhat facilitated later in the day, it is good practice to introduce writing and drawing in the early afternoon, though not immediately upon the opening of the session, since a few minutes are required by the neuromuscular system to quiet down after the general excitement of the long play period just preceding.

Length of period. If it were practical, the rule most satisfactory to mental hygiene would be to close a class period the moment interest and hard work began to flag. Since, however, such indefiniteness of program would hardly fit in with the conduct and administration of a school, it becomes necessary to provide periods of definite length for each subject. The age and maturity of the pupils is the fundamental factor to be taken into account in determining the length of the class period, although wherever possible the method of instruction used, the content of the period, and the difficulty of the performance should be considered also. Chadwick's standards are still widely in use in American schools, and from the viewpoint of mental hygiene they appear to be eminently satisfactory. These are as follows:

Grade I	15 minutes	
Grades II, III, IV		20 minutes
Grades V, VI	25 minutes	
Grades VII, VIII		30 minutes

There is considerable leeway in various school systems —

and rightly so — with regard to the proper length of class periods for a given age group. It seems certain that there is more likelihood of periods being too long in most schools than too short. A relatively short, intensive period is much more economical both scholastically and hygienically than is a prolonged period in which the attention of the pupils is scattered and their application weak.

Pauses and recesses. Twenty years ago, Dr. Burnham counseled¹ that the way to develop power to resist fatigue in children is by short periods of intense work followed by periods of rest, and that prolonged periods of work should be looked upon with grave suspicion as likely permanently to injure the ability to work. This conviction in the minds of schoolmen, at least of mental hygienists, remains as strong to-day as it was two decades ago. The results of experimental studies in the learning process, which indicate that a fallow period after practice of a datum increases one's retentivity for the datum, taken together with the results of studies into the efficiency of workmen which indicate that frequent interspersions of brief rest periods may increase the output of the individual as high as four hundred per cent, point convincingly to the advisability of the introduction of frequent brief rest periods into the classroom.

From the standpoint of mental hygiene, the practice so common in our American schools of hastening through with one recitation and plunging forthwith into another without pause or interval is highly reprehensible. Teachers themselves, spurred on by the ever-present necessity of covering ground, maintaining schedules, and getting their children promoted, are innocently guilty of adding to the strain and confusion of school life, and with interfering seriously with

¹ Burnham, W. H.: "School Work in its Relation to the Duration of the Lessons, the Sequence of the Subjects, and the Season of the Year"; in *Transactions of the Second International Congress of School Hygiene*, p. 33. London, 1907.

the proper comprehension and organization of subject-matter in the minds of the learners. The remark of Kraepelin to the effect that the inattention of children is often their salvation and that uninteresting teachers are a hygienic necessity has a new significance in this connection, for at least the child who is frequently inattentive to the teacher or the lesson may be in a position either to work over actively or to assimilate passively much of the instruction that he was able partially to absorb in the feverish haste in which it was given, and which he would otherwise be in danger of losing. Dr. Burnham writes:¹

... It is not a matter of indifference to health whether five or six hours a day for the long period of school life be spent in hurry, nervousness, and confusion, or in developing habits of concentrated attention and orderly association. Precisely such conditions in the schoolroom and often in the home have helped develop that nervous irritability and instability that is proverbial among Americans. It is the disgrace of the school that its graduates so often have to be reëducated in the hospital and the sanitarium. The result of the methods that have prevailed in the school and in American life have brought about, in a large part even of the best and most highly cultivated people, such a condition of hurry and of strain that for many individuals it is impossible to take a vacation. A vacation is a state of mind, not a situation; and only a radical change in the mental attitudes of such persons would make rest and recreation possible.

Frequent short pauses are, then, essential in the classroom, and while there is no experimental evidence, it is a safe assumption that an interval of from three to five minutes, devoted to quiet idleness and terminating in some light calisthenic exercise with wide-open windows, should be provided at the end of every class period in which sustained

¹ Burnham, W. H.: "Mental Hygiene in the School"; in *Transactions of the Fourth International Congress of School Hygiene*, pp. 388-89. Buffalo, 1913.

activity of a mental sort has been carried on. Such a pause will be as beneficial to the teacher as to the pupil, and should leave both in a better condition for the work of the ensuing period.

A longer recess in the middle of each session is justifiable as a means of summoning children out of the tiring postures and attitudes of the conventional schoolroom situation, and as a means of bathing their bodies with sunlight, their lungs with fresh, out-of-door air, and their brain cells with re-oxygenated currents of red blood. To reap the fullest advantage of the longer recess, the child should spend it out of doors whenever possible, and in light play rather than in the severer forms of sport. The noonday recess should be two full hours, and the midday meal a moderately light one, in order that the digestive processes may be facilitated and the child reasonably ready to resume intellectual work rather promptly at the beginning of the second session.

The hygiene of opening exercises. It is a universal practice in most of our lower schools to introduce at the beginning of the day's session some exercise more or less extraneous to the routine work of the schoolroom. These exercises usually take the form of singing, Scripture reading, morning talks by the teacher on some subject of current interest or appeal, health inspection or talks, group recitation of creeds, poems, pledges, etc. Many times activities of this nature are gone through with because custom and tradition have dictated their continuance; often they are entered into by teacher and pupil in a sort of mechanical listlessness and apathy. If opening exercises serve any real purpose it must be either to put children into the right mood for beginning the day's work, or to help them to throw off the lethargy of the early morning and warm them up for the more strictly mental work just ahead. The trouble with many of the opening activities commonly seen in our schools is that, far

from bringing about either of these results, they actually leave the child as sluggish and inert as he was at the beginning, or else they serve actually to reduce his ambition and readiness for the day's work to a still lower point. Hastily selected and wholly inappropriate passages of Scripture, read hurriedly and in a low tone by the teacher; repeated droning of the same morning song week after week and month after month; perfunctory repetitions of absurdly overlearned poetry or prose gems — these are all illustrations in point.

The mental hygienist would plead for variety in the opening period as firmly as in any other school exercise. He would also look with suspicion upon every performance that tends to become perfunctory or mechanical. In many ways this period is the most important one of the day, and teachers need to put quite as much thought into preparing for it as they do for what comes afterwards. To this end, let the Scriptural passage be chosen with great care, and read beautifully; let the children be continually learning new songs and new memory gems; and let every activity that finds a place at this time of the day be inspiring, entertaining, stimulating. Even a brisk, happy game is much to be preferred to a monotonous repetition of some memory exercise which would be retained just as well if repeated once a week instead of daily. Interesting nature observations, entertaining anecdotes, notable historical events, appealing biographical materials of great men and women, important current events, and such other experiences as captivate the imagination of boys and girls may be relied upon to furnish an unfailing source of material for excellent opening exercises. Pupil participation and even supervision should be made possible wherever feasible.

Comfortable seating and appointments. It is quite beyond the scope of the present volume to enter into a dis-

cussion of the physical equipment of the school plant. The fact should not be lost sight of, however, that cheerful and harmonious surroundings, comfortable chairs and desks, ample illumination, and general cleanliness, exert no small influence over the quality of work done in the schoolroom. Buildings in which the temperature is not permitted to climb above 65° to 68°, that are well ventilated at all times, and whose individual rooms are made homelike and attractive by subdued color tones, beautiful pictures and fresh flowers or plants are large factors in the promotion of good mental hygiene in those who spend their days within their walls. The school is the only really beautiful environment within the experience of many children, and from it they must absorb whatever standards of refinement and beauty they acquire. The day will come when the schoolroom appointments will be at least as attractive and withal as comfortable as, say, the moving-picture theater and the clubhouse. Even the hard wooden chairs on which children must sit for five or more hours a day will be upholstered or padded to make them as comfortable as those in amusement resorts, in which incidentally patrons rarely sit for longer than three hours. Any reasonable equipment, in short, which would help to make the school premises physically comfortable and mentally appealing should be forthcoming. They have been bare and uncomfortable too long. Factories and business offices have long since felt the need of providing attractive quarters and lounging-rooms for their employees. It is high time that parents demanded similar things for their children.

The hygiene of control and discipline. Without question, the school most to be desired is the school in which there is a community of aim and effort between pupils and teacher. This unanimity dominates all the activities of the school day to the extent that there is a general atmosphere of har-

mony everywhere in evidence. In such an environment discipline will almost entirely take care of itself, for when interest falters the confidence of the pupils in the ideals of achievement and of conduct which their teacher has for them will be sufficient in most cases to hold them reasonably well to their work.

In every school, however, there are occasions when disciplinary situations arise which must be met promptly and intelligently. Firmness on the teacher's part is indispensable at such times. Vague threats and warnings are undesirable because they tend to incline the child to try out the teacher in order to see just what she will really do in an emergency. Prompt and effective constructive measures, on the other hand, put an end to the matter immediately and leave no doubts or uncertainties. Wherever possible, the point at issue should be brought clearly before the offender's mind forthwith, and the offense itself be handled as a social one in which the entire group has been imposed upon. The adverse public opinion of one's mates is a more sobering agency than is the single opinion of the teacher, though expressed never so emphatically. It is bad mental hygiene either to procrastinate or to waver in disciplinary situations; it is eminently sound mental hygiene for the child to experience swift and certain consequences for any noteworthy delinquencies of which he may be guilty.

Importance of the part played by the teacher. Quite apart from readiness to meet these occasional actual crises, mental hygiene demands certain things of the teacher in the matter of the general influence which she exerts over the mental attitudes of her pupils. In the first place, it is highly important that she shall cultivate the sympathetic attitude toward the learner, without however being "easy." Harshness and lack of sympathy with child life and child problems in the school have a most disconcerting influence and may

even make the total schoolroom experience miserable and unhappy to the more sensitive children. In the second place, the influence exerted by a teacher ought always to be positive and not negative. Adults who have come up through the school system occasionally refer with no little animus to the memory of some teacher in whose presence they were continually paralyzed by fear and dread. Such teachers appear to have over-cultivated the negative attitudes, in their determination to forestall all disciplinary irregularities, and to have under-cultivated such positive attitudes as enthusiasm, sincerity, generosity, and the like. Of the utmost importance is it that a teacher shall command the respect, the confidence, and the faith of her children, and that in all her associations with them there shall be an easy interplay of all the finer qualities.

Finally, the teacher should appeal in her manner and personality to the best and highest that is in her pupils, and should expect and insist upon the finest effort they are capable of. To do any less than this is to lay the foundations for bad mental hygiene. An enterprising and business-like attitude, the contagious glow of interest and enthusiasm, an unfailing belief in others — especially in children — a saving sense of humor, the maintenance and exercise of justice and impartiality, and liberal but not excessive use of praise and commendation — these are indispensable assets to the teacher who would, on the one hand, both reduce disciplinary problems to approximately zero and who would, on the other hand, do her utmost to train up a class of mentally sound and well-adjusted individuals.

TOPICS FOR SPECIAL STUDY AND REPORT

1. How may the results of laboratory studies of fatigue be misapplied to the fatigability of children in the schoolroom, thus leading to false inferences and erroneous practices?

2. Consult with several mature teachers with the end in view of finding out their personal naïve opinions concerning the fatigue values of the principal curricular subjects and the best sequence of studies during the daily session.
3. Look up in the literature several experimental studies of fatigue not mentioned in this chapter, and report in class the findings and conclusions of the investigators.
4. Enumerate as many possible causes as you can think of leading to pseudo-fatigue in the schoolroom, and be prepared to suggest practical ways in which each of these causes may be minimized or actually removed.
5. What is believed to be the physiological cause of fatigue? Refer to some standard textbook in physiology for aid in answering this question.
6. Is all mental fatigue due ultimately to muscular fatigue? Can you suggest evidence to the contrary? If so, would you contend that fatigue engendered in the schoolroom is partially, chiefly, or wholly due to nerve depletion?
7. Cite evidence from your own experience or observation to the effect that reasonably rapid performance appears to be less fatiguing than dawdling performance.
8. Construct for a sixth grade a daily program that seems to you to meet reasonably well the hygienic requirements suggested in this chapter.
9. From the same viewpoint, plan out hygienically desirable activities for a fifteen-minute recess period in the middle of the morning session.
10. Recall the types of opening exercises to which you were accustomed at various times during your own elementary school experience. In how far were they open to the same general criticisms made of such exercises in this chapter?
11. Recall several disciplinary situations that have come under your own observation, either in the school or in the home. To what extent were hygienically sound methods employed in meeting them? In what way does it seem to you better results might have been achieved?
12. List as many supplementary qualities as you can think of that are likely to be found in a teacher for whom the problem of discipline largely takes care of itself.

CHAPTER IV

THE PHYSICAL BASIS OF MENTAL HEALTH

What is mental health? We have reached a point in our study where we may properly venture a definition of mental health to use as a working basis in subsequent considerations. Time and again in the pages of this book we shall have occasion to use such expressions as "adjusted personality," "hygienic adjustment," "integration," etc. Each one of these terms is pregnant with significance, for mental hygiene is concerned fundamentally with adjustment and with integration. We may in brief define mental health as *that condition in which each aspect of the mental life is adjusted harmoniously to every other aspect, yielding in consequence an integrated and a unified personality which evidences and expresses itself in the concordant interaction of a rational thought life, a normal affective life, and an unimpeded volitional and conative life.*

From this definition it is clear that in the well-adjusted self there is scant room for discord and cross-purpose; that there is, on the other hand, a oneness and a unity that dominates the entire being, rendering it in large measure indissoluble and inviolate. Upon a life thus ordered the jangling discords of an unattuned world without, and even the inner crises that at some time or other confront every individual, beat but faintly. It is the unadjusted and the unintegrated personality that is shattered by the impacts of life.

Relationship of physical to mental hygiene. If now mental health and integration are synonymous terms, it follows obviously enough that any factor which tends to make for disunity in the psycho-physical organism will have

its effect upon the mental healthfulness of the individual. The naïve, everyday experiences of the layman abundantly bear witness to this close interconnection between the physical and the mental. The irateness of the gentleman suffering from gout, the testiness of the dyspeptic, and the irritability of the rheumatic are proverbial, as are also the sourness and touchiness of the person suffering from an aching tooth, a neuritic twinge, or a sharp migraine. If the adage of the philosophers — a sound mind in a sound body — be not always tenable, certainly the influences which a poorly functioning organism are capable of exerting over the mental attitudes of its possessor are profound indeed. Only the rare mortal thus subjected to the tyranny of an exacting and distracting body can rise above the din of his own organism and work serenely and untiringly toward his goal or objective in life.

The mental life of children in particular is likely to be distorted by the malign influences exerted subtly upon it by physical and physiological disturbances of even the mildest nature. It will be our purpose in the following pages to enumerate the principal disturbances of this nature found among school children, and to inquire into the probable effects which each has upon normal mental healthfulness.

Normally functioning sense organs a condition of mental health. Among the more common types of physical defectiveness which invariably condition the mental hygiene of the child are poorly functioning sense organs, notably of course the eye and the ear.

The eye. While the structural defects of the physical organism have no legitimate place in this volume, it will enable the student better to understand the intimate relationship between eye and mind if we pause to recall the principal irregularities of this organ. These are either: (1) a condition of near- or far-sightedness, due respectively to an

elongation or to a flattening of the eye in its anterior-posterior diameter; or (2) an astigmatic condition, due to a structural unevenness in the curvature of the cornea or of the lens; or (3), and less commonly, strabismus, a condition in which the axes of the two orbs are not parallel.

Regardless of which of these defects is present — and very frequently there is an aggravated condition in which myopia or hyperopia is combined with astigmatism — the result upon the visual mechanism is the same: some degree of refractive error, which may constitute any amount of eyestrain from the mildest to the most acute form. Without question, eyestrain is one of the most serious physiological defects found among school children. Statistics gathered by the Eye Sight Conservation Council indicate that twenty-five per cent of the children in the public schools have pronounced symptoms of eyestrain. In addition to these, there are innumerable other children who either through ocular defect or actual abuse are putting upon the eyes a burden that is fraught with much danger to them. Often, it should be added, the actual sight of the eyes may, through accommodative effort of the ciliary muscles, be apparently normal so that the individual has no immediate awareness of the source of his symptoms.

The reflex disturbances traceable directly to eyestrain are numerous. Among them may be mentioned more or less extreme nervousness, chronic indigestion, muscular cramps and twitchings, neurasthenia, headache, vertigo, vomiting, general fatigue, insomnia, muscular aches, notably in the back and neck. It has even been contended¹ by Dr. Gould that the thorn in the flesh of a considerable group of literary and scientific men was in reality eyestrain of the more persistent and damaging sort. The names of Carlyle, Swift, Darwin, DeQuincey, Huxley, Mary Ann Evans, Wagner,

¹ Gould, G. M.: *Biographical Clinics*, Philadelphia, 1903. 6 vols.

Herbert Spencer, and others are included in this formidable list, and Dr. Gould states that their headaches and depression and nervousness were due in every case to eyestrain resulting from astigmatism. "Some of them," he adds, "had some of the symptoms all of the time, some had all of them some of the time, Wagner had all of them all of the time."

In the school child the presence of these reflex disturbances caused by eyestrain is as commonly met with as their real cause is misunderstood. As Terman remarks,¹ "it would almost seem as if the whole reservoir of nervous energy could be exhausted through this one leak." Headache is undoubtedly the most common symptom in evidence in the schoolroom, as it is also in adults outside, it having been estimated ² that 71.3 per cent of all those afflicted with eye trouble suffer chronically with some form of migraine or head pain. While this percentage is somewhat higher than reported by Cornell and other investigators, it indicates clearly the very great importance of the early detection and prompt correction of eyestrain in the interest of removing all reflex irritation and disturbance before permanent injury has been done to the system.

Importance of an early correction of defects. From the standpoint of mental hygiene the need for such early correction cannot be overemphasized. The child who cannot use his eyes without causing disturbances in remote parts of his neural organism very quickly tends to become inattentive, mischievous, and even deceitful as a means of escape from an intolerable situation, the guilty factor in which may or may not be understood by the child. Along with these biological reflexes there may also be set up numerous conditioned reflexes, for example of aversion to study, or to

¹ Terman, L. M.: *The Hygiene of the School Child*, p. 266.

² Posey, W. C.: *The Hygiene of the Eye*, p. 60.

constructive application of any sort, which exert malign influence upon the individual.

In addition to these disunifying accompaniments of eyestrain in the pupil there is likely also to be found retardation and backwardness in the work of the school. Parents, teachers, and mates may and frequently do make the irreparable mistake of considering many a child stupid and lazy whose only dereliction is a consuming and enervating error of ocular refraction which knows no faltering nor let-up. Concentrated attention and application are impossible under these conditions, and the quality of the child's work suffers in consequence. Unable to do his school tasks creditably, possessed of an insuperable restlessness, and afflicted more or less poignantly with headache and other sympathetic disturbances, the child victim of eyestrain often forfeits the solicitude of his parents, loses the approval of his teacher, is misjudged and undervalued by his mates, and ends by becoming secretive, morose, and unhappy, all of which sequelæ are particularly bad for mental hygiene.

The ear. In a similar way the child whose hearing is impaired is very frequently misjudged. Defective hearing is not ordinarily amenable to correction in the way or to the extent that defective vision is; consequently there is less likelihood of the relief of this impediment in the school child. Inasmuch also as impaired hearing is ordinarily caused by an actual microbic destruction of tissue rather than by faulty structure of the mechanism, the reflex disturbances associated with it are largely lacking. The mentally unhygienic effects of hardness of hearing are not due to direct nervous strain set up by the organism in its effort to correct a recalcitrant member; they come about rather indirectly as subtle psychological reactions of the handicapped person.

The hard-of-hearing child is confronted constantly with a very trying situation. Unable to hear plainly enough to

understand, and yet manifesting no outward appearance of impairment or deficiency, he can neither participate intelligently in a lesson nor join freely in the intercourse of the playground. Not comprehending clearly the questions asked of him by his teacher, and not perceiving the trend of the lesson under discussion, he makes a uniformly poor showing at school. At home he is apt to be chided for heedlessness and perchance even stupidity. His condition misunderstood, and he himself of course unaware of any auditory deficiency since very probably he has no recollection of ever having heard any more acutely, and even his mentality called in question, is it any wonder that the hard-of-hearing child withdraws more and more into himself, actually shuns the companionship of others, and perhaps even accepts the commonly expressed opinion of parents and the frequently unexpressed opinion of teachers, that he is actually dull and stupid? The effect of such a state of mind upon the mental health cannot be minimized. Habits and attitudes of aloofness, of self-distrust and perhaps contempt, and the almost inevitable building-up of the fell inferiority complex, are but the logical outcome of this inner conflict. Behavior of this sort is utterly incompatible with the ideals which mental hygiene has for childhood.

Absence of toxic absorptions essential to mental health. The two chief sources of pus absorptions into the system are: (1) a diseased condition of the naso-pharynx due to infected adenoids or faucal tonsils, and (2) carious and decaying teeth. Both local and constitutional injury may be done to the organism by the continuous absorption of pus discharged from these areas. Hypertrophied tonsils and adenoids that are actually infected lead commonly to ear complications and hardness-of-hearing, to mouth breathing, to the adenoid face and voice, to recurring attacks of tonsillitis or tonsillar abscess, to a chronic catarrhal condition

of the membranes, to greater susceptibility to the respiratory diseases, to defective nutrition, to a dwarfing of physical growth, and to a retardation of the mental growth.

Decay and impaction of the teeth are frequent primary causes of facial deformities, toothache, decreased masticating power, oral sepsis, indigestion, rheumatism, endocarditis, neuritis, nephritis, arteriosclerosis, a heightened sensitivity and tension of the nervous mechanism, and retardation in the work of the school. Teeth in which there are cavities supply ideal breeding grounds for millions of microorganisms, which are swallowed into the stomach and are carried in the general circulation to remote parts of the organism, setting up infection at points of low resistance. Pus pockets driven into the gums at the ends of tooth roots, following death of the pulps, supply the blood constantly with infective material which may or may not be neutralized by the body's natural defenses, and which is now definitely known to be a very common source of organic disease.

In New York State, where records extending over many years have been kept, more children have been found absent from school because of toothache and illness due to diseased teeth than from any other cause. Such children obviously fall behind their classes, and in many if not most cases become repeaters. From a strictly financial standpoint tooth trouble in school children was costing the State of New York, in 1920, nearly a million dollars a year.

Mental hygiene is interested primarily in possible sources of toxic absorption, whether these be tonsils, or teeth, or other local areas, because of the effects which such poisons exert upon the nervous system directly and upon the mental evolution and life generally. Perhaps the most serious damage effected by these toxins upon the nervous system is the interference with the nutrition of the brain cells, which suffer in common with all the other cells of the body from

inability to take up and assimilate the volume of food elements necessary for vigorous activity. A plentiful dietary may be provided, but the effect of the toxic substance impairs the digestion of it in the stomach and intestine and renders the transference of it at the capillaries less efficient. Consequent dullness, stupor, and heaviness result inevitably. No small amount of retardation in our schools is due directly to the deleterious effect of septic materials of this order. Along with retardation go discouragement, unhappiness, and perhaps even rebellion, in the child's mind.

In addition to backwardness in his school work, the child victim of septic absorption actually suffers vaguely and often unconsciously from nervous irritation, restlessness, and occasional pain. This more or less continual reflex innervation may and commonly does drive the child into undesirable forms of activity, and sometimes into open delinquency. "How," asks Dr. Hopkins,¹ "can a child study or keep his mind on his school work if his teeth are a source of almost constant irritation? How can a child be good when indigestion or lowered vitality from diseased teeth are unconsciously always nagging at him? Many a sweet nature has been changed by bad teeth." It might be added that many a sweet nature has been soured and ruined by this condition, has been made to look out upon life incompletely, abnormally, fearfully. The problem of the mental hygienist would be considerably simplified and the wide scope of his efforts sensibly diminished if the unfortunate nervous and mental effects of septic absorption could be banished by widespread and universal attention to dental and nasopharyngeal prophylaxis among parents.

Adequate nutrition a condition of mental health. Disastrous as is a failure of adequate nutrition to the welfare of

¹ "Some Things Every One Should Know About the Mouth," in *The Commonwealth* (Boston), vol. VII, No. 5, 1920, p. 323.

the adult organism, in the case of the child any interference with proper nutrition is triply disastrous. In the midst of the growth impulse, the maintenance of the integrity and vigor of the cells is a prerequisite to normal development. The organism of the child is after all but an animal structure whose growth depends wholly upon nurture. Limit, stint, or unbalance in this nurture will result inevitably in retarding, checking, or perverting growth. Full, complete, and sufficient nourishment is a prime condition in normal functioning of the cells. Body nurture is ultimately but the nurture of the cells. Optimum metabolism means optimum body response. Various statistics have been worked out by a great number of investigators, both in America and Europe, concerning the actual percentage of undernourished children among the school population. It is probable that at least ten per cent of the school children of America are seriously undernourished; while probably another ten per cent are in mediocre physical and mental condition because of defective dietary. In many localities, particularly among the poorer classes of the large cities, the percentage of undernourished children may rise well beyond twenty-five per cent. Estimates run as high as sixty per cent. There appears to be a positive and direct correlation between the condition of a pupil's nutrition and his susceptibility to disease. It also appears that the undernourished child has far less strength to throw off diseases once they have fixed themselves upon him.

The fact should be noted, of course, that an unsuitable dietary is not the only responsible factor in causing a child to be undernourished. There are a score of other agents any or all of which may be found to be coöperating in reducing the nutritional condition of the pupil. Some of the more usual of these are overstimulation, improper habits and conditions of sleep, insufficient clothing to permit the heat-regu-

lating mechanism to work in a normal manner, bad teeth or gums, toxæmia resulting from adenoids and overgrown tonsils, eyestrain, lack of proper play and exercise, etc., etc. In all of these, however, it is questionable whether there is not frequently an underlying condition of poor nutrition which aggravates and is in turn aggravated by them. It is probable that any condition in the environment of the child which does not provide for normal reaction to normal stimulus has a very direct and profound effect upon the nutritional state of the organism. There is need here for much investigation.

From the viewpoint of mental hygiene, the matter of nutrition is of notable importance, since a deficient dietary is one of the common causes underlying retardation in children. In a large per cent of the cases the behind-grade pupil is the poorly fed pupil. Available statistics seem to point to the fact that immediately subsequent to the inauguration of a program of school feeding the alertness and general accomplishment of those pupils who previously were of a poor grade of scholarship increase sharply. The breakfastless child and the child from the type of home where there is little or no intelligent oversight of the dietary present social problems of no little moment to the school authorities.

The chronic stupor and lifelessness of the poorly nourished child are well known to every teacher. "If only I could put a bomb under Mary!" exclaimed her teacher recently to the writer. "She never seems to really wake up!" Poor Mary! Even a bomb would fail to arouse her out of the lethargy thrown over her by cell hunger. And it is more than lethargy that is holding her fast in its grip. Lethargy is a very common outcome of malnutrition, but it is only one. Along with it go brain fag and mental weariness that are as pronounced in the morning as in the evening; an imperviousness to ordinary stimuli that baffles the

uninformed teacher; indecisive action and slow movements that fail to eventuate in any positive self-expression; striking mental vacuity and absence of mind that are reflected plainly in the dull eyes; a paralyzing lack of ambition that holds the victim ever on the same gray level; tardy and uncertain perceptive powers that prevent genuine participation in the work at hand; a chronic condition of uninterest that freezes normal responsiveness; and a trance-like withdrawal of the personality from the imminent and the tangible, and a turning of it inward upon its own bare walls. Positive, assertive, and unifying responses are quite impossible to the very much undernourished child, and distinctly transitory and uncertain in the sufferer from moderate nutritional deficiency.

Sufficient restful sleep as a condition of mental health. One of the aspects of health in greatest need of further investigation is the matter of sleep, especially since the actual amount of sleep children are accustomed to get is so often at variance with the standard amounts recommended as necessary for the various ages. Duke's norms require thirteen and one half hours for five- and six-year-olds, and a half hour less for each subsequent year of age up to fourteen, the theoretical norm for which remains ten hours, as it was at thirteen years. These have been widely accepted by parents and nurses as representing the ideal amounts of sleep needed by children at different age levels.

The actual amount of time devoted to sleep, however, is found to vary widely from Duke's norms. The classic investigation of Terman and Hocking indicated¹ a distinctly lower practical standard than Duke's theoretical one, the differences varying between three quarters of an hour and two hours. In endeavoring to account for this dis-

¹ Terman, L. M., and Hocking, A. D.: "The Sleep of School Children"; *Journal of Educational Psychology*, March, April, May, 1913.

crepancy between theory and actuality, these investigators secured supplementary information from their subjects that would enable them to determine the correlation existing between the amount of sleep, on the one hand, and school grades, intelligence, nervous traits, social status, etc., on the other. No correlation was found, and the investigators were driven to the conclusion that the standards proposed by Duke and others were too high, and that children are likely to receive more sleep than they actually need. Terman points out¹ that after all quality of sleep is more important than quantity.

Much more investigation is needed before the optimum amount of sleep for the different age levels can be determined with any exactitude. In the meantime the mental hygienist has something to say of importance in the matter. The study of Terman and Hocking, referred to above, was made in 1911-12, and considerably antedates the age of prolonged wakefulness — if one may thus dub the present era of night life in most communities. In the absence of experimental evidence to confirm the opinion, it appears extremely probable that long hours of quiet sleep, for the growing child at least, are the best conservators of his mental healthfulness that could be found, assuming of course that he is living a normally active and satisfying daily life. It is difficult to believe that a twelve-year-old child would continue long to be as well off physically and mentally with eight and one half hours of sleep nightly as he would be with ten and one half. It is seriously open to question whether the excitement and the nervous tension that would no doubt be engendered in those two extra hours of wakefulness would not, if continued indefinitely, be a source of considerable physical danger to the child. On the other hand, spent habitually in refreshing sleep under proper conditions, these two hours

¹ Terman, L. M.: *The Hygiene of the School Child*, pp. 370 ff.

could not but add immensely to the child's storehouse of health, equanimity, and resistance power. The lure of the street and the amusement hall, the social demands of school, club, and church, and even the appeal of first-rate children's reading are among the modern conditions responsible for the unfortunate reduction in the amount — not to say the quality — of sleep which children secure. Added to these are such other factors in the home as noisy radios, social demands, late hours, etc., all of which are bound to interfere with the sleep of the children.

An unobtrusive sex life as a condition of mental health. The Freudians are right in their hypotheses to the extent at least that there is no physical function more prone to disturb the peace of mind and endanger the mental health than that of sex. Many of the abnormalities and neuroses of adult life are not infrequently traceable to some irregularity or maladjustment in the sex life. Often if not usually the root of this evil stretches back into the childhood and youthful experience of the individual, and reaches down deeply into the very soul — a rankling and malignant growth.

There is no greater concern for mental hygiene than that the sex instinct shall be neither prematurely awakened in the child, nor greeted with fastidiousness and denunciation on the part of the parents when they observe signs of its awakening. Curiosity and interest in this great dominating life force are inevitable, sooner or later, in boys and girls, and parents and guardians of childhood do ill when they avoid the issue. Their questionings unsatisfied through legitimate channels, children tend to seek answers from illicit sources. Often it happens that the vulgarity and crudity — and often viciousness — of these sources cause a morbid and hypersensitive reaction in the seeker after information, and leave in his mind a very unfortunate maladjustment. Often, too, the vaunted wisdom in such matters paraded by other

children and exchanged eagerly among them may easily become the foundation, in the mind of a sensitive and impressionable child, of a very serious psychosis which may persist for years, even up into adult life.

The following confession made by a fourteen-year-old girl, a freshman in high school, to an older confidante who was endeavoring to diagnose her acutely disturbed mental condition, is typical probably of large numbers of children in the early adolescent period when the whole matter of sex is beginning to be fanned into flame by the everyday experiences and contacts of life.

You would think I was awful if I told you what I really think about a lot. . . . Well, I don't understand this business about babies — how they come. My mother told me a little, but not much, and I don't dare to ask her anything more. She'd think I was crazy! At school sometimes the girls get together, and each tells what she's been told or found out, but it's all mixed up, and it seems *awful*. *I hate it!* But why if it's natural and good, as mother says it is, do people look so funny if anything is said about it? It must be awful! It makes me sort of sick and scared. Some of the girls said they knew about it, but they wouldn't explain. They just laughed and said: "Oh, you'll know some day!" And we none of us would dare to ask our mothers!

Here is a very unfortunate situation, arising, as is so often the case, out of the parental desire to keep young people innocent of all sex knowledge until they are well into the 'teens. The inevitable alternatives that they will either seek surreptitiously after information or else will develop some morbid maladjustment to the whole subject of sex, parents persistently fail to take into account. Yet such is invariably the case. The adoption of a frank and open attitude toward the matter as soon as interest in it begins to manifest itself is the only sensible and healthy thing for parents to do. Far more wholesome is it that boys and girls shall have their questionings sympathetically and candidly

answered by a parent, than that they should seek to have thrust upon them information from secret and often vicious and obscene sources.

Sublimation through deep interests and exercise. Premature awakening of a sex consciousness may be avoided, on the physical side, by scrupulous cleanliness of the body parts and, on the mental side, by a sympathetic control of the environment to the extent at least of eliminating from it such malign agents as obscene pictures and salacious literature. Lack of cleanliness of parts leads very shortly, as every adult can testify, to more or less irritation. In children and young people this may commonly result in handling and scratching and thus result in unwarranted attention or thought, from which it is often but a step to complete arousal of the sex impulse. Called thus fortuitously into conscious experience, the possibilities of secret vicious practices are extremely great, and once these have been initiated the problem of uprooting them becomes a very grave one indeed. With such habits there is likely to be called into being a long train of subtle mental concomitants, among which self-reproach, social aloofness, and the inferiority complex are especially prominent. There can be few more harmful mental attitudes than these in young people. Vulgar or licentious companions, obscene pictures, erotic literature, suggestive theatrical advertisements and billboards, sex plays and films, and flagrant immodesty in the opposite sex are among the evil environmental factors which may fan into flame the smouldering sex impulse in boys and girls.

The only normal method of keeping the sex life unobtrusive throughout the pubescent and early adolescent period is through sublimation. Young people who have an abundance of physical activity of a reasonably strenuous sort, deep and wide interests, wholesome fads, well-selected reading matter, and opportunities for normal social activi-

ties are in no great likelihood of being driven into morbid curiosity and secret sex habits. Removal or absence of such desirable activities, however, may very naturally lead to an abnormal interest in sex.

Normally functioning endocrine glands a condition of mental health. The relationship of the endocrine glands to normal physical growth and mental development is not yet fully understood. There is, however, a dependable body of information in this field which points unmistakingly to the profound influence which these glands exert, both in childhood and in adult life. It is outside the purpose of this volume to enter into any detailed structural description of these glands. We shall be content merely with the bare enumeration of the more important ones, and a brief statement concerning their chief known functions.

The endocrine or ductless glands are so-called because typically, unlike the salivary glands for example, they possess no ducts through which their secretions are poured into the organism. They include the adrenals, or suprarenals, the thyroid, the pituitary, the parathyroids, thymus, pineal, and other structures. The extracts secreted by these glands are absorbed into the blood stream as it is flushed through them, and are thus imparted directly to the body in the circulation.

The adrenal glands lie just over the kidneys and have been the object of much brilliant experimentation. So powerful is adrenin, their secretion, that when found in the blood in the ratio of one part in 200,000,000 its effect is noticeable. When the extract is injected into the blood vessels of the animal, a tremendous immediate rise in blood pressure follows. A marked lowering of normal blood pressure ensues immediately in an animal from which the glands have been removed. A diseased condition of the adrenal glands in human beings, known as *Addison's*

Disease, in which the volume of secretion is lowered, results in muscular weakness, a feeble blood pressure, a peculiar interference with the normal pigmentation of the skin, and terminates invariably fatally. On the physical side, adrenin stimulates the blood vessels to maintain a state of partial constriction that is essential to their normal tonicity, and is believed to exercise some subtle control over growth.

On the mental side, as Cannon and others have demonstrated, it appears that such strong emotional states as fear, anger, etc., are always correlated with — if indeed they be not ultimately caused by — an increased absorption of adrenin into the blood, with an attendant rise in blood pressure and increased heart action. Injected into an animal, adrenin causes a cessation of peristalsis and a general inhibition of the digestive organs, much like the effect produced by actual innervation of the autonomic nervous system. It is thus highly important for mental health that the adrenal glands be in a condition of normal functioning in order that certain physiological processes essential to body health may be maintained. It is likewise important that excessive emotionalism, notably in children, be avoided so far as possible in order that the irritating nervous effect of an excessive volume of adrenin in the organism may be foregone.

The thyroid glands comprise two lobes, located one on either side of the upper trachea, just below the larynx. A young animal from which the thyroids have been extirpated surgically immediately shows a much reduced rate of growth, and from this circumstance it has been inferred that the thyroid is concerned in some subtle but pronounced way with metabolism, notably in the young. Arrested development of this gland in childhood results in a condition known as *cretinism*, characterized by stunted body growth, marked increase in connective tissue, falling hair, and arrested

mental development. Taken in time, the deficient functioning of the thyroid may be compensated for by feeding thyroïdin, a preparation made from the thyroid glands of sheep. Under activity of the thyroid, occurring often in adult life, results in a condition known as *myxædema*, while over activity leads to exophthalmic goitre. Since the active principle in the thyroid secretion, known as thyroxin, is concerned with oxidation and metabolism, the importance of the normal functioning of the thyroid to physical and mental health is quite apparent, because any factor that interferes with the assimilative processes of the body is certain to be injurious both to the physical and to the mental well-being of the organism.

Similarly, the pituitary gland, situated at the base of the brain just back of the optic chiasma, exercises marked influence over the growth impulse. Partial extirpation induces a slowing up of this process and interferes strangely with bone formation. The giant at the circus is likely to be the individual in whom too much pituitrin was secreted during the growth period. So also dwarfs and pygmies are thought to be the victims of insufficient activity on the part of the pituitary during the period of growth.

The other important endocrine glands, including the parathyroids, the thymus and the pineal, are less thoroughly understood, but there is strong evidence that they likewise are concerned with the normal growth and metabolism of the body during the growing years, and that any abnormal condition in them is reflected very quickly in the general condition. It is quite possible that the most valuable discoveries in connection with the functioning of these glands have not yet been made. This may also indeed be true of all the endocrine glands. In any event, it is certain that normality in their functioning, especially during childhood and youth, is of prime importance to the physical welfare,

and so to the mental health, of the individual, and that as far as possible striking deficiencies or abnormalities in the endocrine system should be detected early and the most enlightened measures known to medicine be undertaken to correct or compensate.

Some supplementary physical conditions of mental health. The mental health of large numbers of children is jeopardized by numerous physical conditions besides those more common ones mentioned in the preceding pages. Prominent among these occasional causes may be mentioned deformities, crippled limbs, and speech handicaps and defects. In general, any physical peculiarity that singles one child out from the group may and frequently does become a prolific causative of maladjustment in the individual, due to the sensitiveness aroused by the bantering remarks of others. Manifest deformities, such as malformations, extreme asymmetry, bowlegs, harelip, and others, are to be included in this category. A crippled condition of the limbs, resulting in awkwardness and poor control of movement, may also be the cause for the development of a distinct psychosis, which is intensified by the plaguing and fun-poking of thoughtless mates. Stuttering, stammering, thickness or other impediments of speech, whether due in the last analysis to actual physical defect of the oral apparatus or to psychic conditions, are quickly detected by other children and made the point of departure for an enormous amount of unseemly banter and mimicry.

Children have always been past masters of the art of applying appropriate epithets and sobriquets to those among them who possess striking physical peculiarities, and even those children who are by nature only moderately sensitive cannot long react indifferently to teasing and persecuting of this sort. Shortly, they are driven more and more in upon themselves, become morbidly conscious of

their deficiencies, grow secretive and anti-social in trying to cover them up, shun the companionship of their mates, introspect abnormally, and in not a few cases develop definite feelings of insufficiency and inferiority which wreak havoc with the general mental serenity and healthfulness.

Importance of adequate medical and clinical facilities. Since, as we have endeavored to point out in the preceding pages, the condition of the physical affects so profoundly the mental healthfulness of the child, it is apparent that the early and thorough correction of physical deficiencies becomes a problem of major importance in the interest of mental hygiene. Health inspection is now actively in operation in most of the larger and in many of the smaller communities. Ultimate extension of this work to include children in all the schools is very greatly to be desired.

Mere provision of universal health inspection is not sufficient, however. There is small value in the most thorough diagnosis of a child's physical condition if it does not eventuate in corrective measures. For the children of the poor and of the ignorant, the provision of adequate clinical facilities where correctional work can be done at small cost, and of nursing and follow-up service which will serve to unite the home with the school and the clinic on the common basis of the highest good of the child, is of transcendent importance. The cause of permanent clinics in the larger places and occasional or traveling clinics in the smaller places cannot be too ardently pleaded by teachers, and by those interested in the evangel of mental hygiene.

TOPICS FOR SPECIAL STUDY AND REPORT

1. Prepare a list of noted men and women of history whose condition of physical health was, like that of Charles Darwin, a more or less continual source of suffering, yet who by force of will and strength of character rose spiritually above their handicaps and made worthy contributions to life.

2. Review carefully in some textbook of physiology and anatomy the chief structures of the eye and the ear.
3. Cite instances known to you in which the proper attention of an expert to the eyes of a child has resulted in demonstrable benefit, both to the physical health and to the mental improvement of the pupil. Cite similar instances of the beneficial results of expert aural treatment.
4. Enumerate the chief sources of septic absorption that are likely to interfere with the general health of an individual. Can you refer to any cases in which the drainage or elimination of such areas has produced noteworthy improvement in the physical health and the mental hygiene?
5. Study the recent developments in nutritional work among children in your community. Pay special attention to such activities as nutrition clinics, school feeding, fresh-air rooms, vacation camps and colonies, etc. What are the known results of these various correctional measures upon: (1) the physical status, and (2) the schoolroom achievement of those children who have received the benefits of this work?
6. Think over the various sources of sex information from which you derived knowledge in childhood. Were they safe and helpful? Do you think any large number of children receive questionable or actually vicious information about sex matters? If so, from what sources?
7. Make a survey of the amount of sleep gotten habitually by as many children and young people in your family and among your acquaintances as you can get access to. How do the amounts compare with Duke's norms? With Terman's? With your own judgment? With the judgment of the parents of these children?
8. Read a good chapter on the endocrine glands in some textbook of physiology. Chapter xviii in *A Textbook of Physiology*, by W. D. Zoethout, and Chapter xviii in *A Textbook of Anatomy and Physiology*, by J. F. Williams, are recommended for this purpose.
9. Do you know any individuals — either children or adults — in whom such handicaps as deformities, crippled limbs, speech defects, etc., have been responsible for the development of unfortunate mental attitudes? Explain.
10. Enumerate the various clinical facilities in your community for the correction of physical defects revealed among the school children. By what agencies are these supported? How successful are they in reaching children in need of their services?

CHAPTER V

HABIT AND THE CONDITIONED REFLEX

A case of habit. My attention was first attracted to what I have since observed to be one of the fundamental characteristics of my neighbor, Smith, by the wretched condition of his sidewalk in winter. Every other abutter in the neighborhood saw to it that the snow on his section of the walk was removed promptly after each storm. But not so, Smith. Smith never shoveled, except when he happened to feel in the mood for it — which was rare — or when Mrs. Smith succeeded in driving him to the task — which was rarer still. Pedestrians wound their way each winter, Indian-like, through the fresh drifts of snow in front of the Smith home until they succeeded by stiff pedal performance in beating down a serpentine footpath which rose higher as storm succeeded storm, and which was always a problem to negotiate after a rain or after the spring thaws began to undermine it. Smith's children floundered through the *impasse* daily to and from school; Smith's wife minced through it on her frequent marketing and social expeditions; Smith himself straddled through it, cool and unconcerned, as though to set an example of poise and self-control to whomsoever it might concern; the irate neighbors scolded about it among themselves, lurched and sprawled grumblingly through it, and turned back to glare at the footway as soon as they had navigated it.

This neighborhood nuisance was what first called forcibly to my attention the general negligence of my neighbor, Smith. But as I observed him more closely I found plenty of corroborative evidence which rendered incontrovertible

the deduction that Smith was an extremely negligent individual. In the summer time, for example, Smith's lawn was neglected shamefully, and was an eyesore to every other householder in the community. The privet hedge that grew in the rear of his home resembled a primeval forest that encroached persistently upon the lawn. A broken window pane in Smith's attic remained unrepaired until a driving rain beat through it and ruined a ceiling in the front bedroom; then a piece of cardboard was fitted into the sash and fastened with tacks — a makeshift that did service for the major portion of a twelve-month before a new light of glass was actually set. Smith's automobile was always the most conspicuous one in the street because of its accumulated mud and dirt. A punctured tire remained unmended until the "spare" itself gave out and continued use of the car was made conditional upon attention to the leaks. The first annual November cold spell found the radiator unequipped with an anti-freezing solution, with the result that the cooling system promptly froze up and wrought havoc with the motor.

Such was the fame of Smith among his neighbors.

The major rôle of habit in our lives. An individual is after all but a bundle of habits.¹ In selecting for comment the general habit of negligence which characterizes Smith it is not intended, of course, to imply that Smith has no other striking traits — good, bad, or indifferent. He has many of all three varieties. Negligence has been singled out because of its prominence in the man. If you will think over the manifest habits of a half dozen of your acquaintances, chosen at random or picked deliberately, you will find numerous traits that are as obviously characteristic of them as Smith's negligence is of Smith. When you try to

¹ Throughout this discussion the term "habit" is used in the broad sense to include the concept of "attitude."

visualize what an individual would be stripped of his fundamental habits, you find it extremely difficult. A man is generosity or selfishness, honesty or dishonesty, industry or laziness, sympathy or harshness, humility or arrogance, or some degree of these, in all the ordinary relationships of his life. His viewpoints, preferences, antagonisms, etc., have, as it were, crystallized into a fixed form from which he neither wills nor is able to escape.

Habit is inevitable. Good or bad, we are what we are largely because we have practiced being that and not something else. Other things being equal, Saint Francis of Assisi could have become as Machiavellian as that cunning schemer himself, had he developed the art of practicing subtleties and trickery instead of the gentler ones of compassion and sympathy among his fellowmen. Nero might have become the most enlightened monarch of antiquity if he had chosen to practice constructive rather than destructive statesmanship; and the three wise men of the Gospels might as easily have become three foolish men if they had applied their hearts unto folly instead of unto wisdom. The sequence is inevitable: repetition of the same response to the same recurring situation adds one more hammer blow to the building-in of character. A way of reacting hit upon or consciously reasoned to-day fosters identical reactions to-morrow and the next day, and the next year. Only a sharp set-to with one's self will lead to the modification of character traits to any perceptible degree. Barring such a set-to, only a miracle can transform character.

If the reasonable adequacy of a man's habits could be guaranteed through wise training and intelligent self-discipline, the problem of his morality would solve itself in large measure. It is only because men become established in unfortunate habits that most social and moral and many

mental derelictions occur. Poverty, crime, waste, intemperance, vulgarity, and all their murky tribe would be put to invincible rout if all individuals were to grow up under the control of rational and sagacious habits. While the advent of such a millennium would unquestionably reduce the number of almshouses and prisons and philanthropies, and so work hardship to almoners and wardens and policemen and social workers, it would certainly be a boon to mankind, and would raise materially the general level of society. The likelihood of any speedy coming of such a millennium is, however, extremely slight; along with the poor, we shall probably always have with us those who have been hopelessly enslaved to negative or to actually destructive habits which tyrannize over them most harshly and unrelentingly.

The power of habit. And no tyrant is stronger than this tyrant that dwells within us. Escape from his grasp is all but impossible. The negligence of Smith; and the braggadocio of Jones, who sighs like Alexander for more worlds to conquer; and the selfishness of Black, whose sympathies have been dammed up for thirty years; and the pessimism of White, who hopes secretly to live to see the world go to the dogs; and the prejudices of Green who, being an "in," promptly sees red when the "ins" in politics are forced to become "outs" for a season — these are all the machinations of the great tyrant, Habit, within the souls of men. So also, on the other hand, the punctuality of A, who has not been late at his office in twenty years; and the modesty of B, who has quietly accomplished tenfold more constructive good for the world than the braggart, Jones, will ever accomplish; and the thoughtful sympathy of C, whose Thanksgiving season is made triply pleasant by the awareness that others less fortunate have received at his hand comfort and cheer; and the optimism of D, who is too busy

brightening his corner to scan the horizon for signs of gathering darkness; and the open-mindedness of E, who can see good wherever it exists — even though it be in another political or racial or social or religious camp — these are likewise the gentler handiwork wrought by Tyrant Habit in his gentler moods upon the souls of men.

Whatever his mood, the Tyrant is all-powerful, yielding only after a stubborn struggle to the battles waged against him in his sterner manifestations by an aroused and determined will. He may be, as has been said of him often, our best friend or our worst enemy. In the interest of avoiding conflicts and suffering, he is a wise man indeed who placates and makes him his friend. And the tragic part of it all is that the individual creates the Tyrant by his own acts and deeds. All of us are creating within ourselves a great friend or an equally great enemy. Sometimes we are in danger of losing sight of this fact, and of assuming that the Tyrant is fashioning us in his own inexorable mold. Quite the reverse, we fashion him in our formative years, and then in maturity and in old age we are compelled to reap as we have sown.

Bearing to the right in traffic, whether pedestrian or vehicular; showing deference for the aged; characteristic recourse to profanity or to stock ejaculations; more or less strict adherence to hours of rising, retiring, eating, engaging in business, etc.; color, style, and taste preferences in dress; modes and peculiarities in speech; procedures and techniques followed in doing the day's work; food preferences and aversions; recreational and relaxational activities; quality and speed of handwriting, reading silently, dictating, typing, drafting, etc., characteristic gait, posture and motor control; etc., etc. — these constitute illustrations of the power exerted over us by our habits. Add to these our own peculiar likings and aversions; our hopes and fears and

faiths; our beliefs and prejudices and idiosyncrasies; our sympathies and loves and hates; our optimisms and our pessimisms; our doubts and convictions and enthusiasms, and we have an intimate photograph of ourselves as our habits are making or have already made us. All that is necessary is that we shall practice doing, being, thinking, according to our own peculiar formulæ. The results are as inevitable as they are lasting and unescapable.

The automaticity of habit. Having thought and acted in accordance with the same pattern for a few dozen or a few hundred times, we find ourselves presently so organized that whenever a given situation to which we have reacted many times in the same manner recurs, we respond to it to all intents and purposes quite automatically. Raise your hat to lady acquaintances fifty times and you will thenceforth do it quite unconsciously the rest of your life whenever you chance to encounter ladies. Think "devilish Democrats" a score of times in connection with certain gentlemen of that political persuasion and you will always so do with reference to the whole hated tribe. Go to church for fifty-two Sabbath mornings and you will need no New Year's resolution to stimulate you to continue the practice, but will find yourself preparing as automatically on the fifty-third Sunday to go to church as you will prepare to go to business the following morning. Fall into a slack and careless idiom, and you will bring confusion and chagrin upon yourself when unexpectedly and unheralded the inelegant form makes its appearance in the midst of an interview during which you are extremely anxious to make the best possible impression. From whatever field of experience we draw the illustrations, it makes not the slightest difference: our habituated ways of reacting are likely to be as automatic as our reflexes.

From the physiological point of view, a habit represents

the frequent linking up of a particular group of neurones, with a constantly diminishing resistance offered by the synapses to their discharge. Before habit pathways have been broken through the complex network of neurones, i.e., in earliest childhood, it may be said that the plasticity of the neurones is complete. Theoretically, at least, any pathway that might be chosen could by practice be linked up and forged into habitual readiness to react. Thus, a child could react "chien," or "Hund," or "perro" to a certain playful quadruped as well and as lastingly as "dog." Or he could be taught that dishonesty is the best policy as readily as the opposite axiom. Or again, he could be trained to draw his cap down as readily as to raise it upon meeting a lady; or to react to " 6×9 " with "56" as easily as with "54"; or to associate George Washington with the Sack of Rome or the court of Charlemagne as readily as with Mount Vernon and Valley Forge. If we but start the connection early enough in life, and repeat it frequently enough, so plastic is the neurone and so easily is any one capable of being joined with any other one to make a pathway, we could attach any stimulus to which the receptors are sensitive to any response which the reaction system is capable of making. Not only this, but we can so perfect the pathway thus established that the response will follow as it were automatically upon the reception of the effectual stimulus. When one pauses to appreciate the stupendous significance of this fact, and only then, can he realize in its fullest sense not only the power of habit but the power of the example and the precept of the trainer able thus to exert such profound influence over the learner.

The conditioned reflex. Habits then, once welded in the nervous system, operate thereafter with the inevitableness and almost with the automaticity of reflexes, although ob-

viously the true reflex is a much simpler response than the habit reaction. The differences in complexity and in genesis between habits and reflexes in no wise however discount the circumstance of their neuro-muscular similarity. Winking the eyes at the sudden approach of a foreign object, sneezing when a few particles of pepper are wafted high into the nostrils, and coughing to dislodge a substance caught in the pharynx, are types of reflexes; indulging in profanity when one pounds his finger, nodding a cheery "Good morning" to familiar passers-by, and arising promptly when the alarm clock goes off, are types of habits. The latter responses, once they have been practiced frequently, are very little less immediate, invariable, and automatic than the former.

Reflexes and habits are structurally and functionally closely related. There is another highly interesting response that belongs also to the same category of reflexes and habits: the *conditioned reflex*. Reflexes, habits, and conditioned reflexes form a sort of sovereign trinity in directing and ordering the affairs of our lives. The remainder of this chapter will be devoted to an analysis of the conditioned reflex and its hygienic importance in human life.

To J. P. Pavlov, a noted Russian investigator, we owe the discovery of the conditioned reflex. In a very brilliant series of experiments Pavlov was able to show that an indifferent stimulus presented simultaneously with a biologically adequate stimulus becomes after some practice so associated with it that it is capable of producing the same response originally provoked only by the adequate stimulus. His method was as follows. A fistula was made in a dog's cheek so that a tube could be inserted into the duct of the parotid gland. By this means the amount of saliva secreted by the animal under any condition of excitement or stimula-

tion could be measured accurately. Great care to control all the conditions, and the observance of an elaborate technique, operated to facilitate the study of the conditioned reflex.

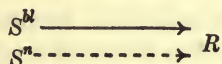
Various stimuli were used by Pavlov to study the activity of the salivary gland. Perhaps the most interesting type of experiment performed was one in which the odor or taste of fresh meat was presented to the animal. Forthwith the volume of the salivary secretion arose enormously, as might be expected. The well-known phenomenon of the "watering mouth" that occurs when favorite foods are smelled or placed before a hungry person is a case in point. Thus far there was nothing surprising in Pavlov's experiment: a simple medullar reflex was taking place. This may be expressed in the formula:

$$S^{bl} \longrightarrow R$$

in which S^{bl} is the adequate biological stimulus, the sensing of food, and R the reflex response: the more active secretion of saliva.

Now, however, comes the interesting and significant part of the experiment. Simultaneously with the presentation of the meat a bell was rung, these two coincidental stimuli being presented regularly for several days just before the giving of food. In a short time the astounding discovery was made that it was no longer necessary to present the food at all: the rate of salivary secretion speeded up immediately upon the ringing of the bell alone. It is indeed a surprising circumstance that a stimulus as biologically unrelated to the salivary reflex as a ringing bell should become adequate to set off that reaction. What had heretofore been an indifferent, a wholly inadequate stimulus has now, by virtue of its simultaneous appearance on several occasions with the biologically adequate stimulus, changed from a

neutral to a decidedly adequate stimulus. The formula now becomes:



That is to say, an originally neutral or indifferent stimulus, S^n , which could not discharge directly into the salivary reflex, R , is able to and does do so after it has been associated in the mind of the animal with the originally adequate stimulus, S^b . Henceforth a new bond is ready to function in the nervous system. To this new bond, the term *conditioned reflex* has been very appropriately applied. The S^n is called a *conditioned stimulus*, the R a *conditioned response*, and the animal may be said to have been *conditioned* to this particular situation.

Various other indifferent stimuli were used by Pavlov and his collaborators, for example, cold and hot stimuli, tones and noises, mechanical stimulation of the skin, etc., to all of which it was possible to condition the salivary secretion of the animal. The investigators have no hesitation in asserting, as an outcome of their studies, that every external stimulus to which an animal is sensitive can, by association with appropriate stimuli, be made a conditional stimulus for any response which the organism is capable of making.

Factors operating in building up the conditioned reflex in animals. 1. *Repetition of the simultaneous stimuli.* There appear to be from Pavlov's work at least four factors to be considered in a study of the phenomenon of the conditioned reflex. The first of these is repetition of the associated stimuli. In most instances it was found that a single simultaneous presentation of an S^b and an S^n was not sufficient to establish a working connection between the S^n and the conditioned response. The associated stimuli had to be experienced again and again by the animal before the response

was conditioned to the indifferent stimulus. In certain cases where the circumstances surrounding the presentation of the stimuli were sufficiently intense to cause a distinct shock to the animal this factor of repetition could be quite set aside and a single simultaneous reception of S^{bl} and S^n was found to be enough to condition the animal thenceforth to S^n . The significance of this fact will appear more sharply in later paragraphs devoted to the conditioned reflex in children.

2. *Frequent reënforcement of S^n by S^{bl} .* The permanence and stability of the S^n ---- $\rightarrow R$ bond in the animal are much less than they are in human subjects. Pavlov found, for example, that if the conditioning stimulus was not frequently strengthened by the biologically adequate stimulus the bond tended to break down rather soon, and that on the other hand the frequent presentation of the associated stimuli tended to increase the stability and permanence of the conditioned response. The practical truth of this may be seen in the writer's experience some years ago with a horse. It was usual in the summer time to turn the horse into the pasture when it was not desired to use him in the harness. In order to catch and bridle him one usually shook ostentatiously a tin dish having in it some kernels of corn, and at the same time called his name in a businesslike manner. Once, and possibly twice, after he had been successfully caught by this ruse, the animal could be attracted and caught by merely calling his name loudly, but on no occasion would he respond a third time unless and until the dish of corn was added to the summons. Observation of this particular horse over a period of many years confirms these findings absolutely.

3. *No delay in the presentation of the S^n .* The fundamental principle in the association of ideas, namely the necessity of their being experienced simultaneously in a

state of consciousness, operates similarly in the association of stimuli that leads to the conditioned reflex. In the case of feeding meat to the dog and ringing a bell, it was found by Pavlov that if the S^n was delayed no more than ten seconds after the S^{bl} , the conditioned reflex could not be built up, however often repetition occurred. If the S^n was applied ten seconds before feeding or during the actual process of feeding, the desired reflex could be conditioned readily. Apparently the brain area must be in a state of present excitation by an S^{bl} if an S^n is to be associated with the adequate stimulus and become a conditioning stimulus.

4. *The phenomenon of inhibition.* We have noted above that the conditioned reflex in animals is quite unstable. This fact may be strikingly demonstrated by reference to the phenomenon of inhibition of the conditioned reflex after it has been actually established. Pavlov's experiments show that if at the same time the S^n is being presented there occurs a new stimulus, the S^n loses its effect and the reflex is inhibited. When, for example, the bell ringing has been established as a conditioned stimulus, if the bell is rung and at the same time a new stimulus — such as a flash of light or the moving of an object — is presented, the salivary reflex fails to appear. It is evident that any change in the total situation acts as an inhibiting force on the reflex. A strange paradoxical situation is presented when the conditioned reflex, having been permitted to die out from lack of the simultaneous exercise of the S^n and the S^{bl} , suddenly emerges with all its former force when a totally new stimulus is presented.

This strange circumstance may be illustrated by the following observation. A ten-year-old boy had conditioned his dog to run off impetuously across the yard whenever he made a feint to throw something. Frequently he actually did throw a small stick, which adequate stimulus was

sufficient to reënforce the S^n of indulging in vociferous "gar-r-r's" and pretending to throw something. One day, however, the boy had no stick at hand, and overworked the conditioned response in the dog to the point of his looking in the opposite direction and refusing to show any interest when his small master feigned throwing. Chancing to dodge quickly behind a half-concealing barrier in the yard, in his endeavor to rearouse the playfulness of the animal, the boy was immediately rewarded by beholding his dog dash across the lawn in the opposite direction, sniff with wide-open mouth and distended nostrils about the spot where he had shortly before been running in search of the stick, and then dash in a beeline back to the boy, eager again for play. The new factor in the situation — the boy running away to hide — inhibited the inhibition which had developed in the dog from lack of sufficient exercise of the original S^n with the S^{bl} , and aroused the original conditioned response to renewed activity.

Significance of the conditioned response in human beings. The human being, sensitive as he is to all manner of stimuli from the environment, is of course infinitely more open to the chance association of stimuli than is the animal. For this reason the significance of the conditioned reflex in people generally, and in children in particular, becomes very great indeed. But there are other reasons besides the human being's receptivity to an infinitely greater range of stimulating agents that make the conditioned reflex a highly important factor in life. In the first place, whereas it is found necessary to reënforce the S^n frequently with the S^{bl} in the animal if the permanence of the conditioned reflex is to be guaranteed, such reënforcing may be wholly unnecessary in the human subject. Suppose for example that a child develops a fear attitude in an electrical storm through remarking the nervousness and possibly fright of another

individual during a tempest. Thenceforth the child will almost certainly react fearfully in an electrical storm, even though having had but a single striking experience to condition him. The S^b in this illustration is the perception of fear in another; the S^n , simultaneously associated, is the perception of the cataclysm outside. The fear which the child thus develops in the thunder shower situation is a conditioned reflex, ready to function at any time thereafter that the heavens are agitated. The child could as readily have been conditioned to such a storm by an attitude of interested curiosity, had that example been manifested originally in his presence, as by one of fear and dread.

In the second place, a conditioned reflex tends to be built up much more quickly in a child than in an animal. Whereas in the animal it is found necessary, save in cases of great shock, to present S^b and S^n simultaneously for a considerable number of times, much fewer associations of stimuli may suffice to create the conditioned reflex in the child. Thus Watson, one of the most indefatigable experimenters in this field, using human infants as subjects, built up ¹ in the boy, Albert, eleven months old, a stolid and phlegmatic youngster who "feared nothing under the sun except loud sounds and removal of support," a conditioned fear of a white rat by striking a steel bar behind the child just as he was reaching out his hands to grasp the rat as it approached. Only eight repetitions of the associated stimuli were necessary to condition the child to the fear response whenever the rat came into view, and he would immediately respond by crying and crawling fearfully away. Here the S^b is the sudden loud noise and the S^n is the perception of the approaching rat. Reasoning from this and a large number of parallel experiments, Watson concludes that there are only

¹ Watson, J. B., and Watson, R. R.: "Studies in Infant Psychology"; in *Scientific Monthly*, vol. 13, 1921, pp. 493-515.

two original stimuli to which the infant reacts with the fear response instinctively: these are loud noises and the sudden withdrawal of support. Such other manifestations as the young child develops, he contends, are traceable in almost every case to conditioned reflexes that have been built in by associated stimuli.

In the third place, a stimulus that may escape the attention of the adult as a factor possessing any significance in conditioning child behavior may have all the power of shock to the infant and the young child, and so may cause in him a conditioned reflex whose origin and persistence cannot be possibly accounted for or explained by the parent or nurse. Thus, a three-year-old child, tagging after his mother into an adjoining unlighted room, became suddenly aware of two luminous eyes piercing through the darkness; immediately he turned about and ran screaming back to the lighted room. The solicitous assurance of the mother that it was only the cat failed to inhibit a consuming fear of dark rooms and of cats that persisted thereafter through many years. Many of the acute fears and phobias that grow up to make miserable and unhappy the lives of children without question take their origin from the chance early association of stimuli.

Finally, fourth, while the conditioned reflex may be much more stable and enduring in the child than it is in the animal, it is also a significant fact that it can be very easily broken down if wise and timely methods are made use of. For example, Dr. Burnham cites ¹ the case of a child who was suddenly aroused to fear as he lay upon his bed by the snapping up of one of the curtains. When brought subsequently into the same room the child turned to look at the window where the curtain was and forthwith began to cry. Here, obviously, the S^{bl} was the shock produced by the

¹ Burnham, W. H.: *The Normal Mind*, p. 103.

sudden noise and the S^n was the sight of the curtain, a conditioned reflex being thus established by a single association of S^{bl} and S^n . The father, no doubt aware of the possibilities of permanent conditioning, removed the child from the room. In this simple way the association could be easily broken up and some time later the child could be put in the same place without any great probability of the earlier experience having left any special trace.

The conditioned response in adults. In whatever adult life situations one searches, he finds plenty of evidence of the tremendous influence exerted by conditioned responses. Associated stimuli occur constantly in the daily experiences, and while many of the indifferent stimuli are not strong enough ever to become conditioning factors, a surprisingly large number of them are and do. For some years the writer has been collecting illustrations of these conditioned responses as they are observed or reported to exist, both in adult and in child subjects, and the number of them is as remarkable as is the wide range of life experiences over which they are found to spread. It will suffice to mention but a few adult conditioned responses here.

A college student is unable to settle down to study without first eating some kind of fruit — preferably an apple. A woman has not slept in any house or in any bed but her own for more than thirty years, and cannot bring herself to visit friends or relatives who live at a distance because she cannot bear the thought of not being able to get home at night. A gentleman suffers from nervous indigestion whenever he eats at any table save his own. Another gentleman is certain to pass a sleepless night unless he lies for a short while upon a couch before retiring. A young woman student cannot study if she is wearing a silk dress. Another cannot bear to remain a moment in a room in which a closet door chances to be open. Another cannot perform either mental or

physical work without first removing any rings she may be wearing. Still another always slips her shoes off before studying, and cannot concentrate until she has done so, while others can only settle down to study by humming, placing their feet on the rounds of a chair, on a footstool, in a drawer (*sic!*), etc. One woman cannot eat a meal if any mention of birds is made. Another grows ill if any one mentions seasickness or ocean travel. Another drops readily to sleep only if her bed slippers are placed carefully under the edge of the bed.

An acquaintance of the writer cannot bring herself to go to church because of a paralyzing certainty that she would become faint and nauseated in the church. She has no such premonition, however, regarding the theater or an evening party. Still another acquaintance suffers from car sickness at the mere mention of riding on a trolley. A clergyman never eats breakfast on a Sabbath morning until after he has delivered his sermon. A sailor friend, whenever he is ashore, finds it impossible to sleep in a rooming house or hotel. He must either be in his bunk on board or else, if he is in the home port, in his old room of yore. An acquaintance of the writer suffered much from insomnia and was verging on an extremely nervous condition. She was advised to leave the adopted city environment for a month's rest in the country. The very first night, amid the old home surroundings, she retired early, fell asleep almost as soon as her head struck the pillow, and slept the sleep of a babe until late into the morning. The old conditioning stimuli retained their power.

It is not peculiar idiosyncrasies alone, however, nor states of mind bordering on the pathological that afford the most common illustrations of conditioned responses. They are to be met with on every hand in the daily life of normal individuals. The tendency to seek out a favorite nook or chair or

table when doing one's work, and the often great resistance offered to calm mental application by the mere presence in unaccustomed surroundings; the after-dinner smoke as a means of putting one in the mood to do the awaiting task, or even to arouse the digestive processes into normal functioning; the adjuvant awareness that one is properly dressed, shaved, groomed, accoutered for the day's work; the subtle influence of the weather upon mood; the consciousness that the morning shower has been taken; the influence of music and tasteful appointments at dinner, along with the state of mind of the diner; toying with one's watch chain, or having a hand in one's pocket, or the assumption of a characteristic attitude when one is speaking — these are among the universal and everyday illustrations of conditioning stimuli that profoundly influence our behavior and our efficiency.

The conditioned response in children. By the time the child enters school at six years of age he is little more than a bundle of conditioned reflexes, as Dr. Burnham has pointed out.¹ Some, perhaps most, of these reflexes are salutary and hygienic; many of them are, however, distinctly unhealthful and often tend toward the pathological. In the early home and pre-school experience of the child there is abundant opportunity for all manner of associated stimuli to be presented, and presented repeatedly. Dr. Mateer found² in her experiments that in general the younger the child the fewer the repetitions of the associated stimuli necessary to condition the response. No child over two years of age required more than eight trials, and only three were required in four-year-old children. It should perhaps be added that dull neuropaths were found to form conditioned reflexes very slowly, and then only when strong stimuli were

¹ Burnham, W. H.: *Mental Hygiene*, vol. v, no. 4 (October, 1921).

² Mateer, F.: *Child Behavior*, etc., 1917.

used; overexcitable neuropaths, however, formed them quite readily.

Many conditioned responses are built up in connection with the sleep of the child. Thus, one child of five, as soon as she is put to bed, is wont to gather up over her left index finger a fold of the blanket and then proceed to "iron" it with the adjacent middle finger, at the same time articulating a series of unbroken guttural sounds that cease only when sleep intervenes. The necessity of having a light in the room, or of a particularly favored teddy-bear being tucked under the covers, or of being rocked or sung or cuddled to sleep, or of grasping a pacifier or the hand of the mother, etc., etc., illustrate some of the universally observed conditioning stimuli to the sleep of babes and young children.

A girl of five has for some years composed herself to sleep by grasping her teddy-bear in her arms and then proceeding to pick a tiny bunch of fur from it, rubbing it under her nose and humming the while in a low monotone. The teddy now has little fur left, be it said.

Conditioned responses to food and food-taking are invariably formed also in the first years of life. An aversion to a particular food, or to food presented by a stranger, or under new circumstances of temperature, container, time of offering, flavor, etc., may be readily established through simultaneous association, as may also food preferences, likings, etc. In addition to these and very early in life every child is conditioned to all manner of stimuli that pour upon him from the general environment, such for example as occur in connection with bathing, use of the toilet, relationship to other children, nurse, parents, visitors, et al., speech development, and the like.

Most interesting of all conditioned responses are those having a distinct emotional tinge. If we may accept the results of Watson's work, the earliest years of life, notably

the second, are peculiarly fraught with the possibilities of mishap along emotional lines. There are so many potential stimuli in the environment of any home which may chance to associate themselves with a natural response that it is not strange that a child is frequently conditioned to them. The following anecdote, contributed by one of the writer's students, illustrates the ease and inevitableness with which an S^n may become a conditioned stimulus to fear of its own father by a six-months-old babe.

The other night N. was seated in his high chair in the kitchen, watching his mother get supper. At six o'clock his father came home from work. When he tried to open the kitchen door he found it locked. He shook it lightly, unbeknowingly jarring an ironing board standing in the back entry almost over. Mother stepped to the door to unfasten it, and just as Daddy entered, the ironing board fell over with a loud crash. The baby's eyes opened wide with fear. He whimpered for a moment but did not cry. After the excitement was over the father came over to the baby and was amused to have him start and cry. The more Daddy tried to stop him the louder he cried. After four or five days, with much playing and coaxing, he gradually won back the baby's confidence, though he is still (ten days later) rather shy of his father.

Here we have an excellent example of the origin of a conditioned reflex, caused by shock, which bade fair to persist for a long time. Inasmuch as fear typifies that variety of conditioned responses commonly termed "inhibitions," we may proceed at once to consider these.

Inhibition. Conditioned behavior may express itself in the inhibition of reaction as well as in its facilitation. Indeed, inhibition is perhaps the commonest type of conditioned response. There can be small room for doubt that much of the constraint and aloofness of human beings in common life situations, many of the impediments and hindrances that dam up the smooth flow of intercourse and sociability, most perhaps of the timidity and the reserve and

self-distrust that hold the entire expressive side of an individual's nature down to mediocre levels, are in no small measure the malign influence of conditioned inhibitions whose strength and sway cannot be broken up by the personality. To take a single emotion, fear, it is safe to say that no factor in human experience can so inhibit and destroy normal reaction as can it, and that much of fear is wholly conditioned. A few examples of the inhibiting power of fear will be helpful. In adult life, we are surrounded on every hand with fears — fear of failure; of social disfavor; of expressing our opinions; of making a poor showing in a social circle; of contributing to a conversation; of participating in any competitive task; fear of breaking a convention; of being misunderstood; of putting ourselves forward; fear of loss, of disgrace, of sin, of disease, of impotence — fear even of fear itself. Most adults are bundles of inhibitions of one sort or another that restrain them from their highest achievements, and after making due allowance for the contributions made to this general condition by our “nerves,” by our state of health, and by our studied habits, there is still ample room left for the contributions made to it by conditioned responses and inhibitions.

Psychiatrists are well aware of the fact that accumulating inhibitions are commonly responsible for psychopathic conditions, symptoms of which often disappear as soon as the inhibiting associations can be broken down through shock or through careful training. Just as a new stimulus will remove an inhibited response in an animal, as the Pavlov school and others have demonstrated conclusively, so a rival stimulus is found by the psychopathologist to be frequently efficacious in removing the inhibitions in the nervously and mentally disordered. Thus, a severe shock has been known to cure “shell-shock,” and the association of curious or intelligent interest with such a fear-inspiring object or event as

an electrical storm will often cause the fear to be dispelled, and recondition the subject to positive and healthful response.

In the training and development of children inhibitions loom large. From the earliest days in the cradle to the time of the achievement of independence in late adolescence, we surround the child with restrictions and repressions. Many of these are of course healthful and essential to normal adjustment; indeed, much of the task of home and school education consists in the arresting of injurious tendencies and the building up of healthful ones to replace them. Many of the inhibitions, however, react hamperingly upon the child and operate to weaken his will-power, and to take the edge off of normal aggressiveness and the impulse to self-expression. For example, we teach children to make themselves inconspicuous; to be seen and not heard; to refrain from boisterousness and levity; to avoid errors in speech, manners, deportment, etc.; to conform to prescribed standards of conduct and general behavior; and to shun these situations, companions, acts, and to cultivate those. Small wonder when the adolescent period supervenes upon the earlier years, ushering in the new self and thrusting aside many of the earlier restraints and conventions, that the release from a dozen years of repression should so stir life to its depths. Many children have been so buried alive under paralyzing inhibitions during these earlier years that even the resuscitating urge of adolescence proves too feeble to give them the necessary power to exhume themselves and build the new life on a broader, freer, and more sweeping pattern.

The school experience contributes its full share to the accumulating inhibitions of childhood. Worry over standing and grades and examinations; fear of failure and loss of promotion; dislikes and aversions formed for certain studies; the terror of meriting or receiving the sarcasm, disfavor, or

scoldings of a teacher; lack of interest in certain lines of study; conscious awareness of intellectual weakness or mediocrity in any or in all lines; the chiding and carping of mates, parents, and even teachers over low grades or poor standing — these and innumerable other influences are constantly fostering inhibitions in school children and keeping them from performing at anything like the maximum of their capacities and abilities. The unwholesome attitudes thus developed toward studies, or mates, or teachers, or the school, or schooling in general, add permanently to the negative side of a pupil's life. Thus it may easily come about from the repressions and fears born of the educative process that such other inhibitions as self-consciousness, self-distrust, and the inferiority complex are developed, and once developed these attitudes inhibit almost every reaction of a positive and assertive nature.

How inhibit inhibition? An acquaintance of the writer, in a somewhat nervous condition induced by family matters, went to his physician complaining that he was afraid of going insane. The physician, a practical mental hygienist and possibly a wiser one than he himself knew, advised the patient heartily to go ahead and act as demented as he could, actually emphasizing this strange advice by suggesting to him several appropriate things that he might do, such as running into the street below and shouting aloud his troubles, lying down and rolling about on the office floor, etc., etc. The patient was given a new idea: the absurdity of the figure he would cut acting in the rôle of a demented individual. He did not heed the doctor's advice; neither did he go insane. A rival idea which was new and considerably stronger than those comprising the complex state of mind in which the man found himself proved in a short time sufficient to inhibit these and release the conditioning factors. In a surprisingly short while the gentleman adjusted

himself rationally to the family emergency and was able to envisage it calmly and sensibly.

Herein lies the chief secret of dissolving inhibitions that prevent one from achieving normal and satisfactory adjustment to his day-by-day experience. The conscious presentation to and entertainment by the mind of a rival stimulus or idea becomes a new and salutary conditioning stimulus, and the old and troublesome one is by way of being put to rout. Since any stimulus coming in from the periphery associates itself forthwith with any brain center that is in a condition of stimulation, the new idea consciously entertained becomes, if it be strong enough, a new conditioning stimulus. In the laboratory a flash of light directed into an animal's eyes at the same moment that a conditioning stimulus is given — e.g., scratching — operates to inhibit the conditioned response — i.e., the flow of saliva. The same mechanism is working in the human subject when a competing idea is juxtaposed with a conditioning idea already functioning.

Examples of the removal of inhibition in this way in adults are numerous. The feeling of stage fright is dispelled by the inhibiting idea of one's real competence, or the felt importance of what one has to contribute; conviction of the trustworthiness of the vehicle in which one is riding, or the skill of the driver, is reassuring to the average timid person. "Pulling one's self together" to meet an emergency, and "putting one's best foot forward" often mean nothing more nor less than fortifying the mind with a battery of adjuvant ideas. General Grant tells us in his memoirs that he was often able to calm himself in battle by the grim but comforting assurance that the enemy was as afraid as he was. Certainly the hectic life of the modern soldier in campaign warfare would be intolerable but for the welcome release from the possibilities of the situation afforded by the envisagement of some such competing idea as this.

The inhibitions of children. Very many inhibitions with children arise out of some form of fear, and may be usually overcome by a wise course of training which helps the child to adopt substitute or rival ideas in place of those that are inhibiting him. In a recent clinic case, a child of 13, Robert, who had formed a nervous reflex of facial twitching which was the subject of constant scoldings by his mother and the cause for much unwelcome attention on the part of other children, made the morbid confession that "it was a habit and he couldn't stop it." Apparently the normal control of the boy was inhibited, and he had lost confidence in himself. The director assured him that it would be easy to establish a new habit of control, and that of course he would get entirely over the habit and would show himself to be strong like other boys. A new program of eating, resting, sleeping, playing and other things of a nature calculated to strengthen the physical side was proposed, agreed to by the mother, and accepted by the boy. A few weeks later Robert appeared at the clinic, a changed personality. "I feel a lot better, and my mother says I'm better, too!" was his proud statement, and in his eye was a new fire of determination and power that had not been there in his earlier visits. Thus was born in Robert a new faith in himself that bade fair to remove the cumbersome inhibitions that had been so long obsessing him.

An eight-year-old girl developed an inordinate fear of caterpillars, the origin of which could not be ascertained. On several occasions the mere sight of one of these insects threw the child into hysterical fright. A wise teacher, discovering one day the child's fear of such harmless creatures, unveiled to her the mystery of the fragile butterfly that would some day emerge from the unattractive looking caterpillar before them, and told her about the beautiful folded wings that would in due time be formed snugly within the butterfly's mansion. A few simple discussions of this

nature sufficed to substitute for the ideas of "ugly, horrible, crawling thing" in the child's mind, ideas of "beautiful butterfly growing mysteriously inside," and shortly the inhibitions concerning caterpillars were entirely broken down and a real interest in them was developed. It is now common for this child to pick up all varieties of caterpillars and other worms that cross her path and allow them to crawl over her fingers and hands and arms. But for the substitution of the rival ideas the fear reflexes would doubtless have persisted and become a distinct nuisance and possibly a source of much nervousness and unhappiness in the subsequent life of the child.

According to the investigations of Watson, as we have seen, only two original stimuli are adequate to arouse the fear reflex: removal of support, and loud noises. To either of these stimuli an infant will react with manifestations of fear. It is Watson's belief that all other fears developed by children are conditioned by the chance simultaneous association of neutral with these adequate stimuli. Whether these two are the only original sources of fear may be open to considerable doubt. There is no question, however, about the fact that most if not nearly all the fears that possess children and often extend upward into adult life are but conditioned responses. Thus, fear of the caterpillar in the case mentioned above may have been inspired because the initial experience with caterpillars appeared coincidentally with some other stimulus that aroused fear or dread, so that the idea caterpillar became conditionally attached to the emotional state of fear. Similarly with fear of the dark, fear of certain individuals, places, etc., fear of snakes, rats, insects, and the like. There is nothing easier than to condition a child to fear by thus presenting simultaneously with an adequate stimulus some purely neutral stimulus that would otherwise never become attached to the fear response.

What is the task of education? What then, in the broad sense, is the task of education? Obviously, on the negative side, to safeguard the child so far as may be from the possibility of the unfortunate association of stimuli, and, on the positive side, to aid him to build up healthful reflexes and break down inhibiting ones that may have become operative. We have already referred to common inhibiting factors in the schoolroom — notably the fear of failure, criticism, error, disfavor, disparagement, ridicule, sarcasm, examinations, and the like. The importance of protecting the pupil from these and similar unhealthful inhibitions cannot be too strongly emphasized. The healthful thing is for the learner to form reflexes of confidence, interest, determination, assurance. Otherwise, as we have pointed out heretofore, cumulative dislikes are speedily formed for a particular subject which may spread to all subjects; diffidence and fear in the presence of the teacher which may result in actual hatred of her as well as in loss of faith in one's self; and unwholesome adjustment to the school which may not only lead to failure and unhappiness but may tinge darkly the whole personality of the child. It must be the task of education to shield children from such mischievous inhibitions of character as these. Future chapters of this book will endeavor to indicate desirable lines of procedure along which our educational aims, content, and methods must move in order not to jeopardize the positive, assertive, and expressive sides of the pupil's life.

TOPICS FOR SPECIAL STUDY AND REPORT

1. Make a list of what you consider to be your ten best habits; supplement this with what you believe to be your ten worst habits. Can you trace the stages through which each of these has been evolved?
2. Do you know instances in which a profound change in character and personality has been wrought in an individual by a determined and emphatic change in habits?

3. Wherein do habits and conditioned reflexes appear to be similar, or identical? What point of variance can you suggest between the two?
4. Review in some detail the experimental work of Pavlov and his school; of Krasnogorski; of Mateer; of Watson.
5. List as many conditioned reactions as you can discover in yourself and your friends.
6. Report any case of conditioned response in an infant or a young child that you may have observed. Can you trace the formation of this reflex? Does it bid fair to become a salutary or an unsalutary influence as the child grows older?
7. What part have fear, self-distrust, shyness, timidity, and the other related inhibitions played in your life? What measures are you taking or must you take to break down these mechanisms?
8. Do you know of any cases in which an inhibition has been removed by some strong emotional experience in which shock was uppermost?
9. Cite instances from your own observation in which, because of unfortunate attitudes, punishments, etc., on the part of parents, definite inhibitions have been created in children. Do you know of any in which through careful training such inhibitions, once formed, have been broken down?
10. Describe an imaginary situation in which a teacher is to blame for the development of undesirable inhibitions in a child, and another in which a teacher is largely instrumental in the removal of such inhibitions.

CHAPTER VI

THE HYGIENE OF CLASSIFICATION

I. THE MENTALLY DEFICIENT CHILD

The case of Vanella. Vanella T——, nineteen years old, was a girl of attractive ways, and would impress the casual observer as being intelligent and refined. She had attended school from the time she was five until she was fourteen. Since leaving school she had lived at home with her parents. At fourteen when her school career closed she was in the fifth grade, which she had been permitted to enter chiefly because the fourth-grade teacher had had her three years, and was desirous of being rid of her. In no grade had her progress been satisfactory, and with the exception of the first she had repeated all of them at least once. Throughout her entire school experience the child had been able to do but one thing creditably: that was to read. In number work she was hopeless, even in the most elementary situations. Her handwriting at fourteen was abominable, and the only thing she could produce with any degree of legibility was her own first name. She could draw nothing recognizable, though she enjoyed multiplying obscure and meaningless sketches upon a paper.

The parents of Vanella were shiftless and improvident, living a careless and indifferent existence in the ancestral home of the mother. The mother was unquestionably a moron, while the father would probably rank as a borderline type. One older child — a sister of Vanella — had been a problem child in school, and was definitely subnormal, but she had married a man of low-average type and moved to a distant town. Vanella was avoided by most of the other

children, partly because of the local ill-repute of her family and partly because of her own obvious peculiarities. Vanella did not care for play, and so seemed not to mind in the least the neglect which she suffered at the hands of her mates. She was content to sit staring vacantly out a window for hours. The only semblance of animation that ever appeared in her features came when she was asked to read aloud. At fourteen she could read as well as the average third-grade pupil, provided material suited to a child of ten years or under were given to her. The Stanford Revision gave her at thirteen years an I.Q. of 65. Performance and manipulative tests were anathema to her, and in none did she exceed the capacity of a nine-year-old.

Between the ages of fourteen and nineteen Vanella lived at home with her parents, doing nothing in the way of earning or preparing to earn a livelihood, content to be idle save for such simple housework as was demanded in a ramshackle home like hers, and withal prepared by her school experience of nine years to do nothing else. From her twelfth year there was some evidence of sex irregularities in her conduct, but nothing eventuated until at nineteen she became a mother, since which time she has found a new childish interest in caring for the infant, much as a five-year-old child is wont to care for her doll.

The case of Vanella illustrates, as do so many other parallel cases, the utter failure of an undifferentiated school system to meet the peculiar needs of a deficient child. The only achievement that it was able to bring about in Vanella during a nine-year exposure period was third-grade ability to read. Beyond this — nothing positive. To offset this, on the negative side, the school had during those years neglected to train Vanella to do any kind of productive work, had failed to implant in her many needed habits and attitudes that she was quite capable of developing, and

turned her back upon society a potential and probably an actual delinquent. In every sense Vanella's school failed miserably so far as she was concerned, for having abundant opportunity and time, it yet did not train her in anything.

Not all children are alike in capacity. In practice we have too long assumed that the raw material of education is an undifferentiated mass to be stamped in the same mold, and to be thrown off like identical coins from the same die. Growing out of this educational philosophy, of course, have been numerous false pedagogical assumptions, among these being the supposition that all children are alike in their capacities and ambitions, that they learn at the same rate, progress at the same speed, and need to do and know the same things. Our courses of study, schoolroom procedures, and general educational organization have reflected this mistaken notion. Only very recently, and only in the better educational communities has there been any practical evidence of a changing conception of the ideals of our schools. It is still the exception rather than the rule when a school system attempts to make definite study and diagnosis of the children committed to it, with the purpose of providing educational opportunities and environments that will be more in tune with their individual needs.

In this blind feeling after light, our best teachers have long realized the importance of differentiated schools, or at least of differentiated work, for children of exceptional gifts or needs. Thus, ever since schools have existed, far-seeing teachers have deemed it to be a part of their duty and privilege to encourage, and even to discover, talents or special gifts in their children, and many a man or woman who has won fame has attributed it in no small measure to some teacher who first pointed out the lighted pathway.

Defective children have always presented a baffling problem to these teachers, but they have sought diligently to

find something that such handicapped pupils could really do well, and then have urged them forward as well as they could, though obviously they were able to devote but a limited time to the pupils of this type. Dr. Henry Turner Bailey has a striking story of such a teacher, imbued with a desire to discover talents in every pupil that could be turned to social account in the schoolroom. He tells of visiting a country school of which the proud boast was made that there were no failures enrolled. In interested surprise he asked the teacher if there really were no failures among her children. She replied emphatically in the negative, and asserted that every child was a specialist. Still more interested, he pointed to a little girl in the front seat. "What is her specialty?" he inquired. "Oh, she's our singer," answered the teacher; "Helen, will you sing for us?" And forthwith it was as though a song bird had been released in the schoolroom. Every child looked proudly upon the tiny performer. "And what might be this boy's specialty?" "Ralph is our artist! Ralph, have you some sketches in your desk?" And forthwith the charm and freshness of nature, as caught by the eye and fastened by the crayon of a child, fell over the room as visitor and teacher and children joined in enthusiastic appreciation of Ralph's handiwork. "And what of yonder stalwart youth?" nodding in the direction of Herbert, who sat in the far corner. "Oh, Herbert? Herbert is our specialist in *height*. There is not a moulding or a window pane in the room that he cannot reach. — Herbert, will you please lower the window?" Whereupon Herbert unfolded his lank body, stepped across the aisle, and easily lowered the upper sash, while every child in the room beamed appreciation of the youth's superb height.

In the larger cities, previous to the recent organization of special classes for backward and deficient children, the school

authorities were aware of the problem presented by such pupils, and attempted to solve it in various ways, as Wallin¹ and others have pointed out. Thus, the Baltimore and Santa Barbara plans provided three differentiated courses for the normal, bright, and dull children, respectively, which required the slow to cover less ground than the average or bright, and offered the bright a greatly enriched course of study. The Cambridge plan had two parallel courses, one of eight years for the average and another of six years for the gifted pupils, with transfer possible at various points from one course to the other. Elizabeth, New Jersey, had a similar plan, except that there were three instead of two sections in each grade. Newton, Massachusetts, assigned a special teacher to devote herself to maladjusted pupils in her schools. Most of these plans were patterned in some measure after certain German systems which found favor among educators a generation ago.

Who are exceptional children? It will be helpful before passing to a more detailed study of deficient children and their needs to understand definitely what types fall within the category of the exceptional child. We may conveniently divide such atypical children as are commonly met with in the public schools into five groups, as follows:

- (1) The mentally deficient child.
- (2) The mentally deficient child with special abilities.
- (3) The supernormal, or accelerated, or gifted, child.
- (4) The problem child.
- (5) The child handicapped by physical defects.

This chapter will be concerned with a study of the first two of these groups: the mentally deficient child and the deficient child who has special abilities in some field that are dis-

¹ Wallace-Wallin, J. E.: "Classification for Instruction of Mentally Deficient Children"; in *Mental Hygiene*, vol. VIII, no. 3, p. 755 ff., July, 1924.

tinctly superior to his general level of potentialities. The following chapter (Chapter VII) will be devoted to the gifted child, while Chapters VIII and IX will be concerned with the problem child. Beyond what we had to say in an earlier chapter (see Chapter IV) concerning physical defectiveness, we shall add nothing, since detailed study of this problem is outside the proper scope of this volume.

Heterogeneous grading of pupils unsound and unhygienic. In the older schools little differentiation was made between the children so far as classification was concerned. All children six (or seven) years of age were enrolled promiscuously and formally in the first-year group. Those who gave reasonable evidence of progress in language and elementary number were moved along in due time into the second year, and so on until they had passed through the system. Those who were too defective physically or mentally to proceed with their original group were permitted to drag along with later entrants, a year with these and another year with those, until they reached the age limits and dropped out automatically, sometimes with two or three grades, sometimes with five or six, to their credit. Unfortunately in many localities this same process has persisted to the present moment, and the school channels in many communities are choked with the flotsam and jetsam of an undifferentiated mass of children manifesting all degrees of physical and mental competence and incompetence.

For a good many years, however, the leading educational communities have been more or less insistent upon giving every child so far as possible a square deal and an even opportunity in his school experience. This desire has eventuated quite generally in the removal from the regular grades of children having pronounced physical handicaps and the placement of them in special groupings and under special teachers. Thus, there are now being maintained in many

communities special classes for children with impaired vision, impaired hearing, actually blind or deaf children, children with crippled limbs, undernourished children, and for children with pre-tubercular and cardiac symptoms.¹ Special classes for handicapped children of these various types have unquestionably come to stay, and are acknowledged by school administrators, educators, and parents alike to meet a distinct need in our educational system. Scattered indiscriminately through the regular classes, children possessing physical handicaps such as those enumerated above find it impossible to make normal progress, are a distinct impediment to the advancement of the non-handicapped, and exert a generally retarding influence upon the units in which they chance to be enrolled. Gathered in from the regular classes, graded according to their individual deficiencies, and placed in special classes organized and taught specifically for them, these children are spared the unhappiness of self-comparison with more fortunate children, are surrounded with such peculiar and specialized educational influences as their particular plight demands, make the maximum progress of which they are capable, and are enabled to adjust or readjust themselves to life demands harmoniously and effectively.

Homogeneous mental classification desirable. Heterogeneous grading of children on a mental or scholastic basis is as undesirable as it is on a physical basis, although attempts at homogeneous classification have been much less universal along the former than along the latter line. Yet it is absurd to suppose that the same sort of educational diet will suffice for the bright child that is adequate for the average child, or that the diet suited to either of these can be

¹ The first special public school class for the deaf was opened in Boston, in 1869; for truants, in New York, in 1874; for crippled children, in Chicago, in 1900; for the partially sighted in Cleveland, in 1913.

appropriate for the dull and the definitely stupid child. Too many glaring instances of failure are in evidence where an undifferentiated fare has been offered to warrant any great confidence in such educational practice. In every school system so organized it is not uncommon to behold the spectacle of naturally brilliant children being dulled and spoiled, and of slow and defective children being turned out into life emaciated and stunted by the unsuitable educational fodder that has been persistently offered to them for eight or ten years.

The history of special class provision for mentally defective children runs back to 1848 and 1851, when Massachusetts and New York, respectively, organized state training schools for the feeble-minded. Cleveland, in 1880, was the first city to provide a special class for defective children in the public school system. There is a tradition ¹ that this pioneer class was discontinued after the first year, and that the teacher became an inmate of a state asylum. New York City opened her first ungraded class in 1895, and Providence followed in the next year, 1896. From that time the growth of these schools has been steady and continuous. At the present time some four hundred and fifty communities maintain such special classes, with a teaching force in excess of twenty-five hundred and a pupil enrollment of upwards of fifty thousand, or about three-tenths of one per cent of the children of school age. An additional twenty-five thousand children between the ages of seven and fifteen are being cared for in state training schools. This number, as we shall see shortly, is only a small fraction of the total number of mentally-handicapped children registered in the regular classes of the public schools.

¹ Haines, Thomas H.: "Special Training Facilities for Mentally Handicapped Children in the Public Day Schools of the United States"; in *Mental Hygiene*, vol. VIII, no. 4, p. 897 ff., October, 1924.

Standards for determining mental defectiveness. In the meantime there is no unanimity of opinion either among state authorities or local educationists as to exactly what constitutes mental defectiveness. Missouri's statutory provision, for example, is for the "feeble-minded who are yet capable of instruction." New York's is for those "three years or more retarded in mental development," as are also those of several other states, notably New Jersey and Massachusetts. Oregon permits the establishment and maintenance of special instructional departments for "the education of educationally exceptional children." Pennsylvania requires similar provisions to be made for such pupils as are "fit subjects for special education and training." The Minnesota permissive law uses the terminology "mental subnormal children"; the Wisconsin law, "exceptional persons of school age"; the Connecticut law, like the Oregon one, "educationally exceptional children."

From the above it will be seen that the various state laws are quite indefinite so far as the legal designation of defective children within their several jurisdictions is concerned. The interpretation of the law and the actual identification of those pupils who fall within its intended meaning are wisely left to local authorities who, with the aid of their research or clinical personnel, may be ultimately expected to fulfill as faithfully and intelligently the spirit of this statute as of other educational enactments.

The matter of identification of defectives is not, however, a simple one, and even expert clinicians differ in their standards of recommendation for the special class. Some authorities assign to these classes all pupils who cannot satisfactorily do third-grade work; others are much less exacting, and permit children to remain in the regular classes unless they cannot reach a sixth-grade standard of achievement. Some cities feel that highly defective children of sub-kinder-

garten level can profit by placement in special classes; others are of the opinion that unless a pupil has a general intelligence level of a first-grade child it is useless to place him in the special class. There may be within the special class children varying only one or two grades in ability or there may be variations as wide as six or seven grades. In some special rooms low-grade imbeciles and slightly retarded children are sometimes found placed indiscriminately.

Use of the special class. Dr. Wallin, a pioneer and an expert in the field of special class education, points out ¹ the inexcusableness of making the special class a dumping-ground for all retarded pupils — idiots, imbeciles, morons, backward normals, and those with specific defects — and recommends the organization of two distinct orders of these classes, one for children of very low capacity or potentialities whose I.Q.'s vary between 30 and 65 and whose mental age ranges between three and nine years, and the other for children of higher mental ability, whose I.Q.'s vary between 65 and 90 and whose potential educational attainments are limited to possibly sixth grade, or a little better. Many school systems are already operating at least two types of special classes for subnormals organized on this principle. The arrangement has the advantage of being flexible and of allowing for the transfer of pupils from the lower to the higher class, and from the latter to the regular class whenever by any combination of circumstances a child outgrows his classification. It has also the advantage of grading defectives far more homogeneously than when they are placed indiscriminately in the special class. Such factors as interest and initiative are operative in defective as well as in normal children, and it is unwise to paralyze these by grading the partially competent with the highly incompetent,

¹ "Classification for Instruction of Mentally Retarded Children"; in *Mental Hygiene*, vol. VIII, no. 3, p. 759 ff., July, 1924.

and dull the spirit of both. One of the strongest original reasons for plucking out the deficient children from among the normal was in order to remove the drag of the former upon the latter. Shall we remove one evil here, only to set it up again there? After all, the ultimate aim of the special class is to improve the status of each child as an individual, and certainly a reasonably homogeneous grading such as Wallin proposes and as has been adopted in many cities is the first step to be taken in organizing such a program.

Professor Mitchell recommended ¹ in the Cleveland Survey the segregation of all seriously defective pupils from the normal children, and their classification into A, B, and C groups for purposes of training. Group A would be reserved for high-grade imbeciles whose potentialities are limited to fourth-grade attainment. Defectives of this order are able under supervision, in his opinion, to support themselves in industrial establishments where a limited range of repeated movements is all that is required of them. They may learn to read and write for their own enjoyment but not with any expectation of advancement. Group B would include all middle-grade imbeciles whose potentialities are limited to manual occupations such as brush-making, basketry, and chair-caning. Group C would be reserved for low-grade imbeciles and idiots, who are capable of nothing more than learning to keep themselves clean and neat, and to indulge in certain play activities. The ultimate disposition of Group C individuals is institutional commitment. In fact, Professor Mitchell affirms that all the feeble-minded should be permanently segregated in institutions or elsewhere when they reach maturity.

Early identification of defectives essential. Failure in a

¹ Mitchell, David: "Schools and Classes for Exceptional Children"; p. 97 ff., *The Cleveland Foundation Survey Report*, 1916.

subnormal child is, as Berry points out,¹ just as disheartening and deadening as it is in the case of a normal child. It is a practical conclusion that every pupil who is admitted to a special class has been a failure in the regular class, and all save the most deficient are aware of this fact. Most of them have dragged along for from three to five years in the regular classes, experiencing all the unhappiness and often misery that go with bad grading, frequent neglect, and constant failure-attitudes which we know are highly inimical to even a moderate degree of mental healthfulness. The conviction becomes therefore unescapable that a school system that does not identify and make suitable provision for those of its backward children who are trainable, before they have drunk the dregs of chronic failure, is reprehensible to a high degree. It is unfair and unpedagogic to turn such children, who are certain of nothing so definitely as they are of their own painful shortcomings, over to a special teacher and expect her to put a new song in their mouth. The deficient child cannot be identified too early, either for his own good or for the good of every one else concerned.

Detroit was one of the first cities to attempt a diagnostic study of all its children at school entrance; other cities have followed the example with great profit, although in most cases thus far only an intelligence test is used as a criterion. In Detroit all entrants are classified on this basis into X, Y, and Z groups, the X group comprising the twenty per cent who test highest; the Y group, the middle sixty per cent; and the Z group the lowest twenty per cent. Shifting from one group to another is made easy whenever the judgment of a teacher fails to confirm the psychological prediction concerning any individual child. The Z group pupils who prove unable to do the work of their group are reassigned to other

¹ Berry, Charles S.: "The Mentally Retarded Child in the Public Schools"; in *Mental Hygiene*, vol. VII, no. 4, p. 765 ff., October, 1923.

special classes before they have had any opportunity to become discouraged by repeated failure. In this way the potentialities of a child are known from the beginning of his school career, with some semblance of actuality at least, and the most effective and economical educational measures can thus be set in motion in his behalf. The deficient child, the normal child, the teacher, the parent, society itself, has everything to gain and nothing to lose by this scientific and sympathetic appraisal of childhood from its earliest school years.

Opposition to the special class. It is a strange circumstance that the attitude of many school officials toward the organization of special classes for the mentally handicapped is so much more unfavorable than it is to the organization of special classes for the physically handicapped. Very frequently it happens that the very authorities who are most interested in providing special facilities for the education of the partially sighted, the deaf, and the crippled, are quite indifferent to the equally great need of the retarded and the mentally deficient. Possibly the greater psychological appeal made by the physically handicapped child is in part responsible for the deeper interest taken in him. It is more probable, however, that the *laissez-faire* attitude maintained by large numbers of school authorities toward the mentally defective pupils arises out of a fundamental misconception concerning their social destiny and the results achievable in many if not most of them by specialized training.

It seems to be a widespread notion among people that mentally deficient children are bound to grow up to become a menace to society through falling early into delinquency, and the idea of putting any great effort into the training and education of such potential delinquents is naturally an unpopular one. As a matter of fact, however, while most delinquent children are unquestionably retarded, the per-

centage of mentally backward children who are delinquent is relatively small. Detroit, for example, had in June, 1924, twenty-six hundred children enrolled in special classes for the mentally retarded, and four hundred, or thirteen per cent of the entire number, in special classes for the delinquent. Of the twenty-six hundred in the former type of class, six per cent had been behavior problems during the year. If we include these children within the meaning of "delinquents," we have a total of less than twenty per cent delinquents among all the mentally retarded. Wallin found ¹ that of all the pupils who were or had been in the special classes of St. Louis, less than four per cent had any known record of delinquency.

By far the majority of subnormals are non-delinquents and probably remain so. Certainly if they are subjected to intelligent and sympathetic handling, are given every opportunity to profit to the limit from their special class experience, and are spared the discouragement and humiliation that come in the regular school from poor standing and repeated failure, the probabilities of their becoming delinquent are made more and more remote. Thus the special class may well become an actual preventive of delinquency, as the experience of many schools abundantly testifies.

Vocational possibilities for the mentally deficient. Still another misconception exists in the minds of many people to the effect that a mentally deficient child is doomed to grow up to be an economic burden, and cannot be made self-supporting. To an individual who holds this notion, the argument that money and effort should be expended in a special kind of training can hardly be expected to appeal.

¹ Wallace-Wallin, J. E.: "An Investigation of Sex, Relationship, Marriage, Delinquency and Truancy of Children Assigned to Special Public School Classes"; in *Journal of Abnormal Psychology and Social Psychology*, vol. 17, pp. 19-34 (April-June, 1924).

It is a fact, however, that a respectable percentage of the mentally deficient can, with the right kind of training, be made law-abiding and self-supporting members of society. Those whose intelligence level is less than eight years — even with the best training — can hardly be made economically independent, and must either be privately cared for by relatives, committed to institutions, or be otherwise kept under supervision. The essential thing is that the training provided for the trainable subnormals shall be of the right sort. Concerning this we shall have more specific recommendations to make in a later paragraph.

Wrong training may drive normal and even bright children into delinquency; right training may restrain all save those of the lower levels of mentality or gross defectiveness from it. It has even been found possible by selecting those in institutions having a mental age of eight years or over to train them to be self-supporting under supervision, and to return many of them to society. England has found, after having debarred for many years all grades of imbeciles from the public schools, an increasingly serious problem upon her hands in the absorption of the ever-increasing number of such unfortunates into her socio-economic life. Volunteer organizations have demonstrated that, with careful training in the occupation centers which they have opened for them (forty-seven, in 1923), even imbeciles can enormously increase their possibilities along both economic and social lines. Wallin, citing this fact,¹ corroborates it with his own testimony that “many low-grade children admitted to special classes under the writer’s direction have gradually reached a higher level of competency than would ever have been surmised from their early school records or initial test findings.”

¹ “Classification for Instruction of Mentally Deficient and Retarded Children”; in *Mental Hygiene*, vol. VIII, no. 3, p. 761. 1924.

Organization of the special class. What principles should be observed in the organization and teaching of special classes for mentally deficient children in order that the greatest returns in economic, social, and personal adjustment may be achieved?

In the first place, the group of children admitted into a given class should be as homogeneous as possible. Where there are too wide variations, either in chronological or mental age, the class cannot operate effectively as a teachable unit. Wallin proposes, as pointed out above, a system of two parallel classes, one for those of higher and another for those of lower potentialities. With the extension of the system of special classes to include larger numbers of the retarded and defective in the schools there seems no good reason why the special classes cannot be made still more homogeneous. In New York State, a range in chronological age from about eight to fifteen years is regarded as a satisfactory working basis at the present time. This excessive range will no doubt be reduced as time goes on: certainly it ought to be.

In the second place, the size of the special class should be small — not above fifteen pupils except in extraordinary circumstances. The whole purpose of special class education will be defeated if the enrollment is allowed to creep up, as we have permitted it to do shamefully in the conventional class. Individual study and instruction are more essential than anything else in dealing with exceptional pupils, and any attempt to use the special class as the general dumping ground for all the atypical pupils in a building cannot but result in making a bad matter worse.

In the Cleveland Survey, Professor Mitchell argues that by concentration of all the special classes in a central building the excessive cost of training defectives can be substantially reduced, since more homogeneous grading can be

effected and thus larger classes be handled. He also suggests that for the defectives of lowest grade a nurse mother is as effective as a trained teacher, and costs much less. While these proposals are no doubt sound, there are certain practical objections to both.

Third, no pupil should be enrolled in or permitted to continue in a special class that fails to give him definite and tangible training which he would be unable to get in the regular classes. Certainly children of gross defectiveness cannot profit at all in any special class. As to just where the dividing line is to be drawn, authorities are not in complete agreement. Cyril Burt, the English educationist, deems all with I.Q.'s below 50 to be institutional cases. The New York State Department of Education suggests that usually those with a mental age under five should not be entered in the special class. Wallin, who wisely prefers to give every child the benefit of the doubt, recommends an I.Q. of 30 as the lowest limit, or a mental age of three years. The last-mentioned standard is probably the best one, provided low-type children who have been given the benefit of the doubt and are found not to be progressing, are removed promptly from the class.

The same difference in opinion and practice obtains with reference to the upper limit below which pupils should not need the special class treatment but may be more profitably continued in the regular group. This limit, Wallin places at I.Q. 85, or 90, or approximately sixth-grade achievement. The New York policy sets the upper limit at the ten-year mental-age level, in the belief that a pupil ranking above that general level is capable of doing more work than can be offered in the special class, and can be more economically cared for in the conventional and larger class.

Fourth, the special class for subnormal pupils should not be made as it often is, a general receiving ward for all types

of problem children whose abnormalities are distinctly of a psychopathic, emotional, or socio-moral nature. No one denies the imminence of their need, but it cannot be successfully met in the special class of the type we have in mind in this discussion. Introducing psychopaths among subnormals complicates both problems hopelessly.

In the fifth place, the needs and abilities of the individual pupil must be kept constantly in the foreground. Each child should be looked upon by teacher and school authorities alike as an individual problem, to be studied, diagnosed, and handled with all the sympathy and skill at command. Even in a fairly homogeneous class of subnormals the abilities and capacities will be found to vary widely. In general, the oral method must largely replace the reading method; concrete material must supersede abstract and literary; the cultural must yield to the practical, even the vocational; objects must drive out symbols; skill of hand and coördination of muscle must be aimed at rather than cleverness of reasoning or facility in phrasing.

Intellectual vs. motor training. The futility of trying to educate the intellect rather than train the muscles of the feeble-minded is pointedly illustrated by the case of the boy, cited in the Cleveland Foundation report (page 69), who after having been three years in the regular grades had been transferred to a special class in which he had spent seven years. As an end result of ten years' laborious effort on the part of his teachers he was able to write "my," "see," and "dog," but when called upon to name these words called "my" "have," and "dog," "see" (!). And for this achievement the city of Cleveland had spent one thousand dollars. Time and money squandered, this!

While these generalizations are applicable to special classes in the large, it should be remembered that there are various levels of ability represented in any class of this na-

ture; that some children will have capacities little under the normal in some directions, and that wherever any educable or trainable spark is found to exist it should be discovered and fanned into whatever brightness it may be capable of assuming. Thus, one pupil may do excellent stitching; another may do first-rate network; another may have ability in woodworking; another, in weaving; another, in lace-making; another in something else of an industrial nature. Such bents should be given every opportunity to develop. The rudiments of the conventional school subjects should be studied by the higher level pupils in the special class, up to the point where it is obvious no further worth-while progress can be made by this child or by that.

Professor Berry describes ¹ thus the organization and conduct of the special classes in the Detroit public schools; these are typical of the best provisions thus far made for subnormal children.

The special classes in the public schools of Detroit, including more than two per cent of the pupils enrolled, are of two kinds: Special A for boys and girls under thirteen and one half years of age and Special B for pupils from thirteen and one half to sixteen years of age. In Special A boys and girls are taught in the same class and these classes are located in the regular public schools. In Special B classes, the boys and girls are separated. The work in these classes is gradually being centralized in order that the departmental plan may be followed, and in order that a more varied course of study may be offered than is possible when one teacher is expected to teach all subjects. In the girls' center, in addition to physical education and the usual academic work, training is given in sewing, cooking, general housework, cafeteria work. In the largest boys' center, training is provided not only in physical education and the usual academic subjects, but also in carpentry, auto mechanics, toy-making, drafting, household mechanics, and the use of the lathe. Provision is made for each boy as far as his

¹ Berry, C. S.: "The Mentally Retarded Child in the Public Schools"; in *Mental Hygiene*, vol. VII, no. 4, pp. 766-67. (October, 1923.)

ability permits, to take work in each one of the subjects named. After he has covered the field, he is allowed to concentrate on the particular kind of work in which he is most interested. It may be suggested that after all we are attempting to make skilled mechanics out of these boys, but this is not the case. If this type of boy is to compete successfully with normal individuals in unskilled labor he must receive a training that will prepare him for such competition. He must know something about machinery if he is to run an automatic machine in a manufacturing plant; he must know how to use tools if he is to become a carpenter's assistant; he must have some specific training if he is to be a plumber's helper; he must have some training in household mechanics if he is to be successful in the performance of odd jobs. By giving him this diversified training we make it possible for him to compete on equal terms in unskilled labor with the normal person who has not had such training. Furthermore, we make it possible for him to perform unskilled labor in several different fields instead of limiting him in a large measure to one field, as would be the case if we merely trained him to run a certain kind of automatic machine. The advantage of the more general training is seen when times become hard, for then the opportunities for the unskilled laborer are more restricted in some fields than in others.

Miss Merrill enumerates ¹ among the activities in which girls of a mental age level of seven years may be trained effectively, the following: work with reed and raffia; dish-washing; basting; lace-making; rug-weaving; linen-weaving; knitting or crocheting; mangling clothes; operating button-hole machines, etc. Only nine of one hundred and nine special-class girls were poor in any of these lines; eight were unusually good. Boys of a similar age level, she finds, may be trained effectively in the following: sweeping; sorting clothes; kitchen work; dish-washing; lawn work; shoe repairing; bread-cutting; brush-making; rope-braiding; net-making; canning; bench work, etc. Only eight of seventy-one boys were ranked as poor in any of these lines; nineteen

¹ Merrill, Maud A.: "Ability of Special Class Children in the Three R.'s"; in *Pedagogical Seminary*, vol. xxv, p. 88 ff. 1918.

were ranked as exceptionally good. In all cases, girls and boys included, some form of supervision was necessary in the successful performance of these activities.

The special prevocational school for retarded girls at South Bend (Indiana) is an excellent illustration of wise and farsighted organization of educational work for backward pupils. Some two hundred girls between fourteen and sixteen years of age who have been unable to make progress in the regular classes are accommodated in this ten-room, centrally located school building. Miss Lampert conceives¹ the greatest needs of this type of girl to be threefold:

1. Ability to adjust to the social and vocational environment.
2. Aid in developing into a woman with a wholesome attitude toward work, play, home, friends, the community, and social institutions.
3. Aid in enabling her to make the most of her native resources and live a happy and useful life of service.

In order to provide for these needs, a well-thought-out program of work is outlined for the girls. One third of the day is devoted to academic work, the other two thirds to home-making subjects, industrial arts, manners, power sewing-machines, foods, clothing, gymnastics, and music, all taught with the distinctly practical purpose of training the pupils to become self-directing members of society who are possessed of desirable ideals, attitudes, and appreciations, as well as of actually usable knowledge of a practical nature.

Highly important supplementary training in the special class. The most thorough analysis of the possibilities in a subnormal child, and the most liberal and comprehensive provision of an educational environment in which to draw out and train these possibilities cannot, however, be relied upon in and of themselves to produce individuals who can be

¹ Lampert, Adelaide: "Prevocational School Serves Special Needs of Retarded Girls"; in *School Life*, vol. xii, pp. 83-86. (January, 1927.)

expected to enter the ranks of good citizenship and hard work and become faithful contributors to them. A course of training that aimed merely at the implanting of knowledge and skills would be woefully incomplete in the case of the normal pupil, and tragically so in the case of the subnormal. The subnormal, far more than the former, must have all the incidental training of character and personality traits that we ordinarily associate with complete and harmonious education of normal children. Of what avail to train a dull boy to perform certain more or less mechanical arts without training him also in habits and ideals that will enable him to hold a job after he has been given one?

It should then be deemed of the highest importance in the training of the pupils in the special class that they develop worthy ideals of industry and application to the task in hand; of regularity and order in their work; of promptness and obedience; of faithfulness and coöperation. Of equal importance is it that orderly habits of thinking and self-control be formed by these children. Careful discipline and sublimation of the instincts are indispensable to success in any individual, and certainly with the less defective pupils considerable can be done along these lines. Healthy mental attitudes toward life and its daily round of experiences need to be established early in defectives as well as in normals. Healthful and wholesome interests can unquestionably be nurtured in the higher-level children. Early unfortunate inhibitions of the personality, which are especially likely to be found in defectives who have been plucked from the regular classes, need to be removed. Fears, inferiorities, and other complexes are to be uprooted and a chance given obstructed energies to be released for positive and creative activities. And last, though not least, the special-class pupil stands in need of definite and continual training in such personal habits as cleanliness, neatness, orderliness, polite-

ness, and courtesy; in the life which he must live beyond the schoolroom, these habits will, if persistently cultivated, make up for a multitude of imperfections and shortcomings of a more strictly intellectual sort.

It must be admitted, in passing, that the problem of feeble-mindedness is one of the most serious ones that mental hygiene has to face. With the most thorough training, the mentally deficient individual can never aspire either to the economic or social levels achievable by normal people. Some authorities, like Mitchell, look askance upon the practicability of anything more than the meagerest of training for them during the school years, and deem it expedient in the interest of society to commit them to institutional oversight thereafter. Other authorities, like Wallin, are convinced that by proper training the great majority can be made at least partial assets rather than total liabilities to society. All are, of course, agreed that the idiots and low-grade imbeciles cannot profit at all by special-class training. It appears that society must go much farther in diagnostic and research work than has thus far been attempted before any finality in opinion or standard in practice can be justified. Meantime it is incumbent upon the educational authorities everywhere: (1) to identify defectives; (2) to segregate them in special classes or schools; (3) to classify them as homogeneously as possible; and (4) to train them individually along definitely vocational and industrial lines.

The defective child with special abilities. Very often there appears in the special class for subnormals a child who manifests conspicuous ability in some specialized field. Sometimes such abilities are distinctly below the corresponding ability in normals, but are nevertheless several degrees higher than are any other abilities which the child in question has. Occasionally these abilities are quite as great as are found correspondingly in normal children; in rare in-

stances they are distinctly superior. Nature, ever lavish with her gifts, seems anxious in many a subnormal child to atone for the more obvious deficiencies which have been wrought in him by implanting real talent of a modest sort. These special talents frequently discernible in high-grade defective pupils are likely to include ability in music, drawing, dancing, dramatic expression, reading, number work, specialized memory, motor dexterity, and the like. In general, as Norsworthy and others have found,¹ the abilities of defective children more nearly approach those of normal children in sensory-motor fields than in the abstract fields involving reasoning and judgment.

Such specialized abilities, wherever found to exist, ought by all means to be discovered and discovered early in the pupil's career in order that the appropriate educational and vocational efforts may be applied to his training. Early and intensive psychological study will be necessary to locate special talents that are latent within the defective child, but the returns made from such an investment of time and effort will be amply repaid in terms of greater potential service to society and of greater satisfaction and even happiness in the individual himself. Unfortunately, as Dr. Bronner points out,² many cases of general mental deficiency are not discovered early; especially is the subnormal child who chances to be a good verbalist likely to escape early identification, due to our wholesome respect for the individual whose use of language is moderately good. Such being the case, intelligence tests of a verbal nature frequently need to be supplemented by others that make more varied mental diagnosis. It is the experience of practically every special-class teacher

¹ Norsworthy, N.: "The Psychology of Mentally Defective Children"; in *Archives of Psychology*, vol. I, 1906.

² Bronner, A. F.: *The Psychology of Special Abilities and Disabilities*, pp. 204-05.

that many a child whose ability as a verbalist is not far from normal may be hopelessly deficient in most or all scholastic situations which involve concentration, reasoning, judgment, memory, and other abstract mental processes.

After thorough diagnosis has revealed a special ability that contrasts sharply with the general level of a child's potentialities, it should be the purpose of the special class to provide every possible stimulus for the development of the trait discovered. There can be little justification for keeping a subnormal child who possesses a specialized ability engaged upon material that will not be useful to him in developing his particular bent. Basketry and reed-work are excellent for those defectives who incline toward some related form of manipulative ability, but can hardly be justified for a child who can draw or design well, or who has good ability at numbers. Apart from providing for such fundamental drill in the formal school subjects as can be of profit to an individual pupil, the special class should concern itself primarily with training that has a pronounced vocational slant, and when the training has been completed, or when it becomes wise or necessary for the pupil to leave school, effort should be made by the special class authorities to secure occupation for him in a type of work in which his abilities are in demand. The South Bend school, mentioned above, is indefatigable in its efforts to find suitable jobs for its girls when they leave the special classes. Dr. Bronner tells ¹ of one eighteen-year-old mental defective who had unusually good motor control but who could do next to nothing in tests involving concrete material, who became a very successful boxer! The writer knows of one subnormal who has made a first-class garage repairman and another who is succeeding excellently as a carpenter.

The mentally defective pupil with special ability along

¹ *Op. cit.*, p. 199.

some line must receive of course the same supplementary training of character and personality that we have indicated in a previous paragraph to be indispensable for all subnormals. A defective girl, for example, possessed of special ability at number, could hardly become a desirable cashier in a shop or store without having some ideals of honesty and trustworthiness. Lacking training along these lines, the subnormal person is particularly prone to fall into dishonesty, but with it a subnormal individual becomes often conspicuously trustworthy and dependable — “honest as the day is long.” A mental defective known to the writer has for some years been a United States mail carrier, and has guarded his pouches in the daily trips to and from the trains as faithfully as any watchdog could have done.

Too much emphasis in the special class cannot be placed on the development in the pupils of honesty and integrity; of initiative and responsibility; of industry and faithfulness. Such traits of character as these, supported and supplemented by self-control, personal cleanliness, and healthy attitudes of mind are quite as essential to, and in the higher types of defectives certainly quite as achievable by, the subnormal as they are by the normal.

TOPICS FOR SPECIAL STUDY AND REPORT

1. What mentally deficient child do you know personally? What assurance have you that he is actually subnormal? What evidence have you that his school experience does or does not meet his peculiar needs?
2. What evidence can you adduce in support of the statement made in the text to the effect that children differ greatly in their capacities and ambitions, and that they neither learn at the same rate nor progress at the same speed?
3. Cite any efforts you know about in your own community looking toward early diagnosis of the potentialities of school entrants.
4. How many and what sorts of special classes are provided in your community? If possible, visit two or more such classes, and report in writing the results of your observations and impressions.

5. Look up the history of special class provision in the schools of your State, noting especially the phraseology of the statutes. Is the law a permissive or a mandatory one?
6. Do you suspect any tendency in your community to make the special or "ungraded" class a dumping-ground for all retarded pupils, with little or no regard for the nature of their deficiencies or their individual needs?
7. Secure from your instructor copies of the *Detroit Kindergarten Test* and the *Detroit First-Grade Classification Test*, together with instruction manuals, and study with some care the scheme of classification based upon their use. Are these or other equivalent tests used in the schools of your city?
8. Look up any available data that will indicate the relationship between subnormality and delinquency among the juvenile population of your community or State.
9. Do you know any mentally deficient adults in your neighborhood who are self-supporting and who are respectable and respected members of society? Do you know any who are neither economically independent nor socially respectable?
10. Review carefully the method of computing the mental age and the intelligence quotient, making certain that you understand the real significance of both symbols.
11. Do you personally know any obviously deficient child or adult who possesses a specialized ability along some one line that is of a distinctly higher order than the general level of his capacities?

CHAPTER VII

THE HYGIENE OF CLASSIFICATION

II. THE GIFTED CHILD

The philosophy of special education for the gifted. "Democracy," opines Professor Cubberley,¹ "is greatly in need of leaders, and it is from among the gifted that leaders must be drawn."

If one goes back to savage or barbaric life he cannot but be impressed with the fact that even primitive leadership was vested in those individuals of the tribe who were possessed of striking and outstanding traits, such as initiative, strong personality, sagacity, and the like. Thus, Chamberlain² tells us that among the Patagonians the "wizards" or "doctors" are carefully selected in youth; that the Buryats of Southern Siberia choose for their shamans boys marked with such signs as thoughtfulness, love of solitude, etc., and if they be occasionally subject to fits, all the better, since during such seizures a boy's soul is believed to be with the spirits, who are teaching him! Various similar methods are generally used among primitives in choosing those who are to be given priestly training. The office of shaman and of priest is frequently an hereditary one among aborigines, although in Ashanti, Chamberlain tells us, the child of a priest or a priestess is not eligible for this elevation, but only a grandchild, the idea appearing to be that "genius skips a generation." The highly significant thing about the selection of the shamans and the medicine men and the priests

¹ Cubberley, E. P.: *Public School Administration*, p. 306.

² Chamberlain, A. F.: *The Child and Childhood in Folk-Thought*, pp. 314 ff.

is that in earliest childhood they are chosen by such primitive standards as are known and are trained constantly by the elders in the arts which they are to administer. Special education for the gifted is not an innovation of twentieth-century schoolmen, but is an accepted practice in most primitive society.

Among primitive peoples, but a few in each generation can be given training along anything more than the most broad and general lines. These few are limited necessarily to the medicine men and the priests and the chieftains. To heal the sick, to exorcise the evil spirits and placate the good spirits, and to protect the tribal organization — these comprise all the specialized activities essential to the preservation of the common welfare. As peoples become more civilized, however, the range of human enterprises broadens out enormously and the need for intelligent leadership increases correspondingly. In our modern highly complex social organization the breadth of the world's work is tremendous, and the need for wise and competent direction of it is no less than colossal. The problems of economics, of government, of education, of trade and commerce, of international relations, of our democratic institutions, of our art and our general culture, of our political economy, loom larger upon the horizon with each coming generation.

Potential leadership not confined to blue blood. The aristocracy of wealth and of social position and of blue blood cannot be safely trusted to produce indefinitely the leadership of any great commonwealth. Yet it is a startling paradox that the possession of wealth is coming to be more and more requisite in those who are to assume leadership. The time is fast passing when the poor boy can reasonably aspire to a position of leadership for which he possesses undisputed qualifications. This unfortunate pronouncement is made with full cognizance of the better educational opportunities

of the day and the recent sharp rise in the curve of high-school and college enrollment. There can be no gainsaying the fact that we have raised and are still raising the general educational level of our people, but we are doing it in lieu of discovering and training up a more enlightened leadership. There is grave danger that as the general level of intelligence rises we shall neglect to raise up a competent leadership to keep well in advance of the procession and point the way with confidence. This potential leadership in the past, at least, has been rocked more often in the cradles of the humble than of the exalted, and in an eighteenth-century and a nineteenth-century world the lowly aristocracy of brains could assert itself with reasonable expectation of recognition and achievement. In a twentieth-century world, friction and resistance that are generated spontaneously in the higher general level render much less certain the rise of meteoric intellects that are cradled and nurtured in mangers and log-cabins and tenement houses.

Frequently, it is true, a promising but impoverished young genius is "discovered" by an individual or a club or a society, and is enabled through some form of philanthropy to blaze a trail of glory in the realm of music or art. Barring striking examples of this nature in which accidental and sporadic unearthing of talent occurs, large numbers of gifted individuals are either quite overlooked or else are doomed by the hard circumstances of environment or fortune to "waste their sweetness on the desert air."

Gifted children more neglected than deficient children. It is an unfortunate circumstance that society should be more solicitous for the welfare of the mentally deficient child than it is for the gifted child. Yet such is certainly the case; indeed it is probable that, as Lee¹ suggests, no single

¹ Lee, A. Scott: "Selection of Bright Children for Special Classes"; in *Elementary School Journal*, vol. 26, p. 190. (November, 1925.)

city in the United States could be named that is giving as much attention to the gifted as it is to the less promising child. Wallin's contention ¹ more than seventeen years ago, that the bright child is neglected more than any other in our public schools, is as tenable to-day as it was then. As to what the chief reasons may be for this persistent disregard of the super-typical child we shall make inquiry in later paragraphs.

How many gifted children are there? Horn is of the opinion ² that progress is dependent upon the upper twenty per cent of the population, and that if civilization were to rest in the hands of the other eighty per cent there would be nothing ahead save stagnation. Few intelligent people will question the thesis that social and economic advancement in the broad sense is possible only to the extent that philosophers and inventors and statesmen and industrials and economists and idealists and prophets and jurists can point out the way and furnish the means of progress. And there is no question but that the leaders in these manifold fields represent the upper intellectual stratum of any age.

There is much difference of opinion concerning the number of super-typical children for whom special educational provision ought to be made. This lack of unanimity is reflected in the varied terminology which individual writers apply to children of more than average intellect. A "bright" child is hardly the same as a "precocious" child; a "gifted" child is not necessarily a "genius"; a "specially capable" child need not be a "super-normal"; a "super-typical" child may not be a "prodigy." Just how far a child ought to be superior to the "type" in order to receive the benefits of special schooling is a problem that many educa-

¹ Wallin, J. E. W.: "Clinical Psychology and the Psycho-Clinicist"; in *Journal of Educational Psychology*, vol. II, p. 123. 1911.

² Horn, J. L.: *The Education of Exceptional Children*, chapter VI.

tionists have debated, and upon which there is at present no unanimous opinion nor practice. Whipple insists¹ that the top ten per cent of the school population should be segregated for special education befitting their capacities. Goddard estimates² that four per cent of the children in the public schools are so superior as to demand special consideration. Terman would restrict³ the meaning of the term "gifted children" to the upper half of one per cent of the children of any given age, and provide special treatment for them. In terms of I.Q., some individuals recommend that children ranking higher than 115 be deemed super-typicals; others recommend an I.Q. of 135 as the proper line of demarcation between the type and the super-type. Every one of the thousand children included in Terman's recent study⁴ had an I.Q. of at least 140.

Effect of the undifferentiated course upon gifted children. Regardless of the discrepancies existing in the standards adopted by various authorities to identify the accelerated pupil, all are agreed that an undifferentiated course of study for the average and the superior is quite unjustifiable, and for two fundamental reasons. In the first place, the half-dozen brighter children in a room when subjected to the same educational fare as is provided for the forty or more average children in the same room are necessarily pulled down to the same level as the latter and very soon lose their identity completely. In such circumstances the few outstanding pupils are engulfed in the mass — and irretrievably so. There is no opportunity for supplying their finer minds with sturdier fare, and in consequence their intellectual appetite loses its edge and accustoms itself necessarily to the coarser menu served in the common trough.

¹ Quoted by Lee, *op. cit.*

² *Pedagogical Seminary*, vol. 18, p. 236 (1911).

³ In *Mental and Physical Traits of a Thousand Gifted Children*.

⁴ *Op. cit.*

But even this unfortunate schoolroom adaptation might be compensated for in a variety of ways by the superior child were it not for the operation of a subtle psychological principle which states that, unless a capable learner is kept vigorously active at a task sufficiently complex to challenge and engage him unreservedly, he invariably loses interest and tends to become at first impatient, and ultimately careless, indolent, and inattentive. This is precisely what occurs in the classroom where an undifferentiated program of study is maintained for every one. The superior child understands an explanation almost before the teacher has begun it; he comprehends a process long before it can be made clear to the type children; his active mind catches the sweep of an event while the ordinary pupil is concerned with the understanding of its factual elements; his greater facility at reasoning and evaluating bring him valid conclusions before the class itself has succeeded in gathering the data on which to hazard a judgment. Minds of this sort cannot be held down with impunity to the slow treadmill of intellect in which the minds of the mediocrity of learners must perform. Attempt to hold them down and you will find them seeking and achieving release in nonconformity, mischief, and rebellion, and the splendid energy which should go into high scholastic achievement is dissipated into a thousand channels. It is one of the tragedies revealed by educational and intelligence testing that pupils who should be leading their classes are often found to be doing very commonplace work. Lacking adequate stimulus, they fail to rise. High I.Q. is not correlated frequently enough with high A.Q. in the traditional schoolroom.

Various plans for special education. The earliest attempts made by school authorities to save the cause of the superior child centered about some means of speeding up the educative process so that a capable pupil could advance more

rapidly through the various grades. The philosophy underlying this "speeding up" process is the obvious fact that a gifted child is able, as Witmer expresses ¹ it, "to learn more than the prescribed curriculum within the prescribed time under the prescribed conditions." Some children can learn in six years what others require ten for.

The most simple means of accelerating the progress of a super-typical child is, of course, to permit him to skip a grade. Since, however, this practice, which was very common a generation ago in most cities, was likely to handicap a pupil severely in the higher grade by reason of what he had failed to receive in the grade skipped, authorities adopted the plan of more frequent promotions. This arrangement makes it possible for a specially capable pupil to be moved forward a half-year at promotion time, thus losing much less of the educational sequence from one grade to the next. While semiannual promotions are now quite generally the rule, some cities, as St. Louis, have organized their promotional systems on a quarterly basis, making it possible for a bright pupil to skip only a quarter's work at a time. Another somewhat more elaborate means of accelerating the progress of a super-typical child is to be found in a more flexible system of grading which provides greater opportunity for the superior pupils to forge ahead.

Flexible grading systems. Professor Henry has recently reviewed ² the various systems of flexible grading in vogue in different places; it will be illuminating to refer briefly to the most noteworthy of these. Dr. W. T. Harris, while Superintendent of Schools in St. Louis, was the first to make definite provisions for the individual capacities of pupils.

¹ Witmer, L.: "The Training of Very Bright Children"; in *Psychological Clinic*, vol. XIII, p. 89 (1919).

² Henry, T. S.: "Classroom Problems in the Education of Gifted Children"; *19th Yearbook of the National Society for the Study of Education*, part II, pp. 11 ff.

In the St. Louis plan, promotion occurred every five weeks, the few best pupils in each class being promoted to the class or section next above them. Coincidental with the inception of the St. Louis plan was the Elizabeth plan, introduced into the schools of Elizabeth, New Jersey, by W. J. Shearer. The Elizabeth plan divided the grade into three or four sections, each being permitted to advance as rapidly as possible; as soon as a pupil is ready, he is promoted without formal examination into the next higher section. The Pueblo plan is substantially identical with the Elizabeth plan.

The Cambridge (Massachusetts) plan, originally adopted in that city about 1891, divided the work of the last six years of the nine-year elementary course into two sections, one requiring six years to complete and the other requiring only four years. During the seventeen years in which this plan was in operation in Cambridge seven per cent of the 10,203 pupils graduated completed the course in four years. The new Cambridge plan, adopted in 1910 when the nine-year elementary course was cut down to an eight-year basis, is similar in operation. The basal course is eight years; paralleling it is a six-year course designed for the more capable pupils. The work of each year except the last is divided into three grades, providing abundant opportunities of transferring from one course to another according to the ability and needs of the individual pupil. The Portland (Oregon) plan is similar to the new Cambridge plan, except that the brighter pupils may complete the course in seven years instead of in eight.

Other cities that have adopted some form or other of flexible promotion designed to break the educational lock-step and make it easy for the more capable children to advance rapidly include New York, Chicago, Newton (Massachusetts), Woburn (Massachusetts), New Richmond (Wis-

consin), Carthage (New York), Bloomington (Indiana), Johnstown (Pennsylvania), Evanston (Illinois), Fond du Lac (Wisconsin), Salt Lake City, Parkersburg (West Virginia), Muskogee (Oklahoma), Richmond (Indiana), Coshocton (Ohio), etc., etc. These and numerous other communities have felt the importance of making some special provision for the super-typical child, and have adapted systems of flexible grading or special promotion as the most immediately practical solution of the problem.

In his returns to his questionnaire, sent in 1919 to all cities in the United States having a population of twenty-five thousand or over, Freeman found ¹ six different systems, designed to facilitate the progress of the superior children through the school, in operation in the eighty-seven cities replying, as follows:

- (1) Promotion by subject.
- (2) Frequent promotion (semiannually, or oftener).
- (3) Sectioning of grades into two or more groups according to ability.
- (4) Extra work assigned the brighter children.
- (5) Special teachers to assist the brighter children.
- (6) Special classes for gifted children.

The first of these systems — promotion by subject — proposes to advance a pupil into the next grade whenever he is found to be ready in any subject. So far as the superior child is concerned, promotion of this sort tends obviously to accelerate progress and diminish the total time required to complete the course. Evanston (Illinois), and Fond du Lac and Kenosha (Wisconsin), were among the first communities to adopt this method of promotion.²

¹ "Provision in the Elementary School for Superior Children"; in *Elementary School Journal*, vol. 21, pp. 117 ff. (October, 1920).

² "In the elementary schools of Fond du Lac," says Superintendent Roberts (quoted by Henry, *op. cit.*), "when a pupil is noticeable because of excellent work in any subject and his scholarship in general warrants the

Additional work for the superior child. The provision of additional work beyond that required of the regular class is an increasingly common method of inciting the superior children to perform up to their capacity. This system places more emphasis upon enrichment of the course of study than it does upon diminishing the amount of time required to complete it. Superintendent Van Sickle was one of the earliest educators to perceive the value of such enrichment and in 1895 he introduced the idea into the schools of North Denver. A minimum program was required of all children, but the more capable were provided with a more substantial and ramified course and encouraged to venture as far afield in it as they had inclination. The Santa Barbara schools early adopted a similar policy, making rapid advancement secondary to self-development and expansion.

The provision of special coaching teachers to aid both the slow and the accelerated pupils seems first to have come into operation in 1891 as an integral part of the old Cambridge plan. Superintendent Spaulding introduced a somewhat similar system into the schools of Newton about 1910 by the employment of "unassigned teachers" whose functions were limited exclusively to the assistance of individuals or groups of pupils who may be trying either to bring their work up to standard or to gain an extra grade. Richmond (Indiana), Carthage (New York), and Coshocton (Ohio) are among the cities that have made provisions for special coaching by supplementary teachers. The brilliant share with the backward the privilege of this individual instruction.

The special class. For cities of moderate size, however, where there are thousands of children, the best solution of effort, and his physical strength is considered sufficient, he is given special help in that subject . . . until he has bridged the gap between his grade and the succeeding grade, and is then advanced in that subject. This is not done without consultation with the parent and a willingness evidenced for the effort to be made."

the needs of the superior pupils, as of the inferior, must be either in some form of special-class provision or in completely individualized instruction. In smaller communities sectioning of a class into slow-moving, normal, and fast-moving groups may be the most practical plan to be adopted; but sectioning of this sort, with elastic promotion schemes and the like, should be regarded for large school systems, as Terman points out,¹ "as a makeshift rather than as a final solution." He suggests six outstanding advantages of the special class: (1) it allows for rapid progress without skipping; (2) it allows an enriching commensurate with superior minds; (3) it discourages vanity by raising the level of competition; (4) it requires the expenditure of sustained effort; (5) it furnishes a stimulating intellectual atmosphere; and (6) it goes far in solving problems of social adjustment. Dr. Terman adds that great intellectual awakening has invariably followed the segregation of gifted pupils in special classes by themselves.

The celerity with which cities have organized special classes for super-typicals has not by any manner of means, however, kept pace with the growth of similar classes for the subnormals, the chief reason no doubt being that the needs of the latter type of pupil have been more striking and more plainly evident to the layman than have those of the former. Doubtless also the pardonable unreadiness of the majority of people — who are average — to single out and elevate the very small minority who are admittedly superior operates to discourage any wide and immediate adoption of a policy of specialized education for the gifted as a group.

By 1911, only five cities were maintaining ² special classes for gifted children, New York City having led the way in

¹ *The Intelligence of School Children*, pp. 263-64.

² Jensen, Dortha W.: "The Gifted Child"; in *Journal of Educational Research*, vol. xv, no. 1 (January, 1927).

1900, and Baltimore in 1902. Indianapolis followed in 1908, and Cincinnati and Harrisburg in 1910. This number had increased to fourteen by 1917. Freeman identified ¹ two years later fifty-two cities above twenty-five thousand in population maintaining such special schools. Lee's questionnaire returns from cities of one hundred thousand and over, in 1924-25, indicated ² that twenty-nine cities in that group were operating classes for super-typical pupils. Freeman's returns from eighty-seven cities in 1919 ³ led him to conclude that the work of these special classes tends to be approximately the same as in the regular classes, but is "given in more rapid sequence," i.e., speeded up. We shall question in a later paragraph the wisdom of rapid advance through the grades and champion the cause of broadening and enrichment of courses.

Individualized education. There have been introduced experimentally into a number of school systems very recently, in a most ambitious and promising endeavor to break the educational lock-step, out-and-out systems of individual instruction and promotion in which every pupil is regarded and—theoretically, at least—handled as an individual. These experiments have fallen under two main heads: (1) individual adjustment without breaking up the class organization and method; and (2) individual adjustment with definite breaking up of class organization. Washburne and others have recently collected and published ⁴ typical experiments along both these lines. Superintendent Holmes, of Mount Vernon (New York) has set aside an hour a day in each grade during which time the teacher devotes herself to needy pupils, and in addition has designated one special teacher in each school to supplement this individual

¹ *Op. cit.*

² *Op. cit.*

³ *Op. cit.*

⁴ Washburne, C. W., et. al.: in *Twenty-Fourth Yearbook of the National Society for the Study of Education*, part II, pp. 31 ff. (1925).

work and to help those superior children who are given double promotion to adjust speedily to the new grade. Superintendent Wirt, of Gary (Indiana) keeps all his schools open on Saturday for individual instruction, seventy-five per cent of the children attending and receiving help, in one or in several subjects for three hours on that day.

Differentiated assignments have been worked out in several localities for the brighter pupils, notably in the University of Chicago High School and the University of Wisconsin High School. In the former school, for example, the material in the content subjects is organized into large units, each of which requires about a month of study. Guide sheets for handling these units are placed in the hands of pupils, and special supplementary projects are assigned those who complete a unit in advance of the class. In the latter school, "continuing assignments" or "optional contracts" are given those who complete early the minimal core assignment in a subject. The emphasis in these and similar experimental schools is placed less upon recitation and more upon workshop technique. The class organization remains, however, intact and considerable time is devoted to class work of the conventional sort, in which explanations, discussions, study and recitation occur regularly.

There are those educationists who contend that, in the light of our new insight into the psychology of individual differences and of the increasing exactness of measurement scales of progress, retention of the class system is both needless and unpedagogic. Dr. Frederick L. Burk, in the elementary school of the San Francisco State Teachers College, in 1912-13, dispensed wholly with the class organization and substituted in its place a completely individualized system from the kindergarten through the eighth grade. Classes were given up; daily assignments were scrapped; self-instructive bulletins in all subjects were placed in the

hands of the pupils; records of progress and promotion were carefully kept by the teachers; and promotion by subject occurred whenever a child was obviously ready. A minimum of teacher help and a maximum of pupil initiative are features of Burk's plan, which is still operative in the original school, and which has exerted wide influence throughout the entire country as well as in many foreign countries. Educators from all parts of the world have been eager visitors in Burk's school.

Winnetka. Superintendent Carleton W. Washburn, a former member of Dr. Burk's faculty, has demonstrated in Winnetka, a suburb of Chicago, that the individual system can be operated as successfully in a public school system as it can in a single experimental school. The Winnetka system divides the educational content into two parts: (1) those knowledges and skills that are basal, and that everybody should master; and (2) self-expression and group activities. Half the morning and half the afternoon are devoted to the former division of the work, which is strictly on an individual basis; the other half of the day is devoted to group work in such activities as dramatization, assembly, school government, committee deliberations, field trips, entertainments, and such creative work in art, shop, etc., as may appeal. During the self-expression periods the children work toward no set goal, nor are they tested in any formal way.

It is obviously the individual-work-period that characterizes the Winnetka plan most typically. The lesson material in every subject is divided into units, each of which must be mastered before the next one can be undertaken. Everything is on a piece-work basis. The bright child completes his unit more quickly than the slower one. There is no "skipping," and no "failing"; each successive unit undertaken must be mastered before the pupil proceeds to the

next. At frequent intervals the pupil tests himself on a practice test and, if he passes one hundred per cent, he applies to the teacher for her test. Recitations are done away with, the teacher devoting all her time to the direct supervision and assistance of individuals and of small groups.

Dalton. Shortly after the inception of the Burk plan at Winnetka, Miss Helen Parkhurst introduced what has since come to be widely known as the "Dalton plan" into the high school at Dalton (Massachusetts). The phenomenal adoption¹ of the fundamentals of Miss Parkhurst's system officially in Holland and Moscow, experimentally in Norway, Germany, Poland, Austria and Spain, extensively in Japan, China, and India, and enthusiastically by more than two hundred schools in the United States, betokens a widespread eagerness to provide more individualized instruction in the schools. Like the Winnetka system, the Dalton plan breaks up the traditional classroom organization; it turns grade rooms into "laboratories," teachers into "specialists," and courses of study into a series of "jobs." Starting with the fourth grade, the curriculum in each subject is organized into job units for which work sheets or procedure sheets are carefully prepared. Three hours out of the school day, or thereabouts, are set aside for laboratory work, and the time of each pupil carefully budgeted. Laboratories are established for each subject, and every pupil has a job card showing at a glance where he stands in each laboratory. A child may go from laboratory to laboratory as he desires. If he is capable in mathematics he may complete a month's job within the first few days in the mathematics laboratory, and then devote the rest of the month to catching up on other jobs that are harder — e.g., English, geography, etc. He cannot be promoted in any subject until he has completed

¹ Parkhurst, Helen: "The Dalton Laboratory Plan"; in *Twenty-Fourth Yearbook of the National Society for the Study of Education*, part II, pp. 83 ff.

each previously assigned job in every other subject. Group work is encouraged in the laboratory, and conferences are held daily in one or another subject, so that general social needs are provided for.

While the systems of individualizing instruction outlined briefly above, and others that might be mentioned, are necessarily largely experimental and temporary, they have proved highly significant as indicating the need for breaking the lock-step in our schools. A portion of the *Twenty-Fourth Yearbook of the National Society for the Study of Education*, referred to above, is devoted to an analysis of such statistical results as are available concerning the various plans and systems of individualized instruction. It appears from these researches: (1) that attempts to classify children homogeneously are unsatisfactory, since children vary so widely; (2) that individual work saves time both for the average and for the superior pupil in a large percentage of cases; (3) that it promotes the social side of the pupils by virtue of the greater amount of time available for expressive activities; (4) that it may be so organized as to restrain the bright pupils from being pushed ahead too rapidly; (5) that it eliminates failure and retardation; (6) that it gives as good scholastic results as and usually better than are achieved under conventional class instruction; (7) that it should cost no more and that there is no evidence that it does cost more than class instruction; and (8) that pupils trained in individual methods are at least as efficient when they reach high school as are those accustomed to the conventional classroom routine.

Enrichment versus acceleration. While it is no doubt true that the length of the elementary and secondary school courses might be somewhat reduced for the superior pupils, it would be exceedingly unwise to promote any child so rapidly through the system that he should find himself in a

group beyond his own social and physiological age. If, for example, a pupil with an I.Q. of 150 is advanced consistently in accordance with his mental age he will have completed the high school and will be ready to enter college at the age of thirteen. Such rapidity of progress is open to the severest criticism from the viewpoint both of the psychologist and the mental hygienist. A pupil thus pushed ahead becomes more maladjusted socially and physiologically with each year of gain. He will be a pre-pubescent among pubescents when he enters high school; a pubescent among post-pubescents during much of his career in the high school; barely an early adolescent among middle adolescents when he enters college; and at graduation he will be a middle adolescent among late adolescents. Socially, he can rarely adjust to his mates because of the unbridgeable hiatus that necessarily exists between his nature and interests and those of pupils from two to four or five years older than himself. Moreover, it is decidedly open to question whether a pupil twelve or thirteen years of age has the physical development and the general maturity that a college entrant ought to have. The mere possession of a prodigious intellect is hardly more essential to the higher student than a physiologically mature body and a background of general experience that can come only with the full passage of the school years.

If then the gifted child is to react positively to his school experience it appears that the appeal must come not through an abbreviation of the course but through a genuine enrichment of it. This embellishment may be achieved either through arborization of the basal subjects, or through the addition of wholly new materials and new studies. In the former connection, more elaborate experimentation, more thorough research, more masterful analysis, broader thinking, wider supplementary study, and journeyings further

afield are among the practical means at hand. In the schools of Drumwright (Oklahoma) for example, Superintendent French has succeeded notably in the enrichment of the conventional course of study for the superior children.¹ He dismisses them from the regular classes for two days each week and admits them to supplementary courses. These courses are usually six weeks in length, and in them wholly new related material is given. One such course, quoted by Buswell, offered in the social science department in the junior high school is entitled "Practical Banking." A study of the aims of this particular course will indicate something of its nature. They are:

- (1) To give the following information:
 - (a) Why banks exist, with brief history of banking.
 - (b) The nature and scope of their business.
 - (c) Their methods of transacting business.
 - (d) The services which they render to the community.
 - (e) How banks make money.
 - (f) How they assist their customers.
 - (g) The relation between the interests of the bank and its community.
- (2) To dispel the mystery surrounding banks and bankers.
- (3) To encourage an early connection and coöperation with local banks.
- (4) To instill a spirit of thrift and conservation.

Horn and Pechstein on the gifted pupil. Other educationists argue for the introduction of wholly new subjects for the more capable children in a school. Horn, for example, suggests ² the addition of three new fields: (1) stenography and typing; (2) instrumental music; and (3) foreign language — stenography and typing, because they are time-saving devices of great value in the future work in which the gifted

¹ Buswell, G. T.: "The School Treatment of Mentally Exceptional Children"; in *Elementary School Journal*, vol. 23, pp. 683 ff. (May, 1923).

² Horn, J. L.: *The Education of Exceptional Children*, pp. 125 ff.

are likely to enter; and music and language because they possess so great power to enrich life. Professor Horn would likewise introduce these pupils early to the chief forms of art which can be enjoyed only by those of superior endowment, and in which therefore they should receive substantial training. Original creative work along these lines, he states, should be stressed by teachers of super-typicals; especially should any striking talent be given opportunity to express itself in these children. The composition of music, original design, verse, fiction, and the like, Horn feels to be in every way desirable in elementary school pupils of superior ability. For these children he would diminish greatly the ordinary routine and the conventional drill and the fixed, habitual ways of doing things lest "excessive habituation tend to crush that creative ability on which the progress of the race depends," and would leave the stage as clear as possible for original thinking and the unrestrained play of the creative impulse. To this end he envisages ¹ the special classroom as a place

without the attached desk and other arrangements that speak so loudly of regimentation . . . with well filled book-shelves along the walls, with musical instruments, with portfolios containing representations of every type. One may in the mind's eye see studios and laboratories, and imagine expeditions into the world of nature and of social relations. . . .

It should be noted in this connection that some of the well-known experimental schools are organized substantially on this basis, and superior pupils enrolled in them achieve results quite unattainable by the average child.

Over against Horn's attitude toward the minimizing of drill procedures in the training of gifted pupils, we find Pechstein contending ² that an unusual amount of drill is needed

¹ *Op. cit.*, p. 137.

² Pechstein, L. A.: "Handling the Superior Child"; in *Educational Administration and Supervision*, vol. x, no. 1, pp. 1 ff. (January, 1924).

because these children are notoriously unable in the earlier grades to hold themselves down to drill routine.

Claims and counterclaims concerning gifted pupils. Ever since the earliest attempts to give special consideration to the gifted child first made their appearance there have been those both in and out of the educational fold who have been strongly opposed. Some have argued — and the medical profession has frequently supported them — that precocity in a child is a pathological condition likely to eventuate in physical or mental disaster if catered to. Others have opined that precocious children always turn out to be quite common and ordinary, like everybody else, and that to make so much fuss over them is nonsensical. Still others have claimed that precocious children have very precarious health, and any extra stimulation given them is certain to be injurious. Some are convinced that the gifted child is typically a highly nervous and unstable individual who lacks power of control and self-direction to an alarming degree. Others variously call him lazy, awkward, inaccurate, babyish. Still others dilate upon his unsocial nature, and insist that specialized or individualized education serves only to accentuate his natural aloofness into snobbishness, conceit, and other related anti-social traits.

Miss Gillingham's studies. Miss Gillingham's work with super-typical children appears to have inclined her to the opinion that very many gifted pupils are strikingly deficient in many traits both social and intellectual.¹ She finds many individual children of very high I.Q. to be mediocre in will-power, poor in muscular control, lacking in powers of inhibition, flighty, impatient of detail, faithless in a task that requires sustained effort, and manifesting pronounced neurotic

¹ For an account of Miss Gillingham's work see two articles by Anna Gillingham, in the *Journal of Educational Psychology*, vol. x, 1919, pp. 237 ff.; and vol. xi, 1920, pp. 327 ff.

tendencies. In her opinion, high I.Q.s are frequently decidedly low in other important traits not measured by the tests. The following case is typical of many which she cites:

Boy, 11.4 years old; mental age, 16.4. I.Q., 144. ---

Below median in penmanship and Courtis reading rate. Above average in height and weight but below in grip.

A boy of brilliant mind who never did as well as he might because of sloppy, untidy papers, and inaccurate work. Hands almost useless. Could never see what difference a small mistake made if the principle was correct. All drill work for accuracy was irksome. Did not seem to know how to play with children. Fell into hysterical sobbing if teased or crossed in a game. No pronounced change this year.

Terman's contrary conclusions. Dr. Terman, however, in both his original ¹ and his latest ² more extensive study of gifted children concludes quite differently. In the 1919 study, which involved a detailed investigation of fifty-nine children who tested 140 or above on the Stanford-Binet test, Terman concluded that superior children were not below the average in general health, that they were well above the average in moral and personal traits, and that any notable lack of social adaptability, such as "queerness," absence of play interests, etc., was the exception rather than the rule.

In Volume I of his *Genetic Studies of Genius*, published six years after his original study, Dr. Terman found his earlier impressions corroborated at every point. This investigation was carried on at Stanford University, with the help of a grant from the Commonwealth Fund, at a cost of fifty thousand dollars, and represents the most extensive and scientific study of superior children ever undertaken. About one thousand children were selected from within the top one

¹ Terman, L. M.: *The Intelligence of School Children*, pp. 165-267 especially (1919).

² Terman, et. al.: *Genetic Studies of Genius*, vol. I, 1925.

per cent of the school population, and the most careful diagnosis by competent workers was made of these individuals over a considerable period. Among the conclusions reached by Terman and his collaborators were:

(1) That as a group the gifted children are above the best average American standards in general physical condition, being taller, heavier, better nourished, and in better health than unselected control groups used for comparison;

(2) That they have mastered the subject-matter of the school to a point forty per cent above chronological age;

(3) That they are decidedly superior in character and personality traits, the descending order of excellence in these characteristics being (a) intellectual, (b) volitional, (c) emotional, (d) moral, (e) physical, and (f) social; mechanical ingenuity was the only trait in which the control group was found to rank higher;

(4) That they surpass unselected children in honesty, trustworthiness, and similar moral traits;

(5) That they excel the control groups most in intellectual and volitional traits; next, in emotional and moral traits; and least in physical and social traits;

(6) That they do their finest school work in abstract or thought subjects, and their poorest in such practical subjects as penmanship, sewing, manual training, and gymnastics that necessitate motor control, being in these skills no better than the unselected children; and

(7) That there are fewer headaches and less nervousness among them than among school children at large. That their less highly developed social traits are educable is revealed by the fact that, when retested two years after the original study, they were found to manifest "increased sociability, social poise, fondness for large groups, etc."

Method of selection of gifted pupils important. In their early enthusiasm to give special educational opportunities to

those children whom the tests revealed to be unusually competent, many schoolmen made the mistake of supposing that a high I.Q. was a sufficient basis upon which to proceed. It has become apparent, however, that the possession of superior intelligence, as the tests measure it, is insufficient proof in itself of the fitness of a child for either an accelerated or an enriched course. Along with keenness of intellect several other qualities must be taken into consideration. In the first place, the ability to do creditable performance in the various conventional subjects of study ought to be a condition to the granting of special educational opportunity. Only through careful testing in subject-matter can the evenness or unevenness of a pupil's abilities be known, and his probable general level of scholastic ability forecast.

In addition to achievement records, as a supplement to the intelligence rating, the judgment of the teacher should be taken into consideration. She is familiar with the pupil's general reactions under schoolroom conditions; she knows his social, moral, emotional, volitional, nervous, and other traits of character that must influence his future work in the special curriculum; and she is in a better position than any one else to make a judgment concerning the probability of a child's physical robustness being sufficient to permit him to do the more intensive work of the special curriculum. Practically every writer in this field emphasizes¹ the importance of using in a supplementary way all three of these sources — intelligence, scholarship, and teacher's estimate — in the selection of superior children for a specialized educational program.

¹ See, for example, "The Superior Child in Our Schools," by Clara H. Town, in the *Educational Review*, vol. 65, pp. 17 ff. (January, 1923); also "Handling the Superior Child," by Louis A. Pechstein, in *Journal of Educational Administration and Supervision*, vol. x, pp. 1 ff. (January, 1924); also, "Selection of Bright Children for Special Classes," by A. Scott Lee, in *Elementary School Journal*, vol. 26, pp. 190 ff. (November, 1925).

The mental health of the gifted child. Whatever may be found ultimately to be the most satisfactory solution of the problems outlined in this chapter, there are several principles of mental hygiene which must be taken seriously into account by educationists in building any permanent program of special education for gifted children.

In the first place, the normal and healthful subsequent development of a child of superior endowment is conditioned in large measure upon wise pre-school and early-school handling. The testimony of Dr. Sidis, Mrs. Stoner, Sakaki, and others, who have devoted themselves to the early care of young geniuses,¹ emphasizes abundantly this fact. There is no doubt but that the rather common notion abroad among uninformed people to the effect that the exceptionally bright child is likely to develop distinctly pathological traits is due to the fact that in many individual cases the parents of such children have by premature urging and excessive stimulation either undermined their health or distorted their social outlook and adjustment. There is no surer way to produce precocity and unbalance in a child than to break in prematurely upon his natural development in order to make a prodigy out of him. It is in the interest of such a child's best evolution that the pre-school and the kindergarten years at least be years primarily of body-building and the cultivation of health. On this foundation genius may later rear itself safely.

In the second place, when the child of superior abilities has finally passed well out of the primary grades, for him to continue longer among unselected children is not to be recommended. Lee found² a growing tendency in the cities which he studied to begin the segregation or specialized

¹ See Miss Town's discussion of this point in the *Educational Review*, vol. 65, pp. 17 ff. (January, 1923).

² *Op. cit.*

program at about the fourth grade, although in many systems differentiation is not emphasized below the fifth or sixth. From the standpoint of mental hygiene the identification of superior children should certainly be made well before the junior high school grades, and definite enrichment of their work introduced. Left longer in an unselected grade, these children are likely to develop such undesirable habits and attitudes as indolence, indifference, carelessness, impatience, loss of interest and alertness, and even mischievousness and deceit.

Third, our democracy must find justification for the abundant education of its superior minds, even though such a policy may tend to educate them away from the group. As Counts puts it,¹ "there is no equality of intellect or gift," and our popular notion of equality stands in strong need of revision. The sooner the mass of people can be brought to realize the inevitableness of the presence in their midst of the gifted class, the better it will be for their own mental healthfulness; and the sooner we can give up calling general attention to the very obvious difference that exists between the moderately endowed and the highly endowed, the better it will be for the mental healthfulness of the latter. Egoism and conceit are not found in gifted individuals to anything like the degree that they are found in mediocre individuals, and it is little short of nonsensical to conclude that an enriched curriculum will, with sensible handling, produce a class of conceited and overbearing fops. Modesty and unpretentiousness appear to be, rather than their opposites, traits of superior individuals. Only one official in the fifty-one interrogated by Lee believed that segregation and special education of superior children would tend to make them either snobbish, egoistic, or undemocratic.

* ¹ Counts, G. S.: "The Social Purpose of the Education of the Gifted Child"; in *Educational Review*, vol. 64, p. 233 (October, 1922).

Fourth, acceleration of the rate of progress with the end in view of decreasing to any marked degree the years spent in the lower schools is, from the standpoint of hygiene, undesirable. On every hand one hears unusually young high-school seniors advised to "stay out" a year before going to college; the attainment of reasonable physiological maturity appears to be necessary if one is to derive the greatest benefit from the higher institution. Similar development is equally to be desired in the case of those who go no further than through the high school, passing immediately thence into the occupations. There is a stage of physiological maturity below which a young student is not sufficiently developed to enter either the college world or the workaday world, and there is no point in preparing him prematurely for entrance upon either. There is undoubtedly also a ripeness and balance of mental powers that must wait upon physiological maturity for their fruition. Collegiate institutions have altogether too many spindling but brilliant pubescents within their folds who would have done far better to vegetate and play a couple of years before matriculating.

Fifth, the whole question of specialized education for exceptional children is still in the early experimental stage, and there is no certainty as to what will eventually be found to be the most satisfactory and hygienic solution. The wisdom of special training is unchallengeable, but the ways and means of best providing it are not yet known; it may be the special class, or it may be completely individualized curricula, or it may be something else, that only intensive experimentation will determine. There is perhaps no more serious group of problems in the general educational field today than those centering around the gifted child. It is unwise to leave these matters to sporadic discussion here and there, or to expect the already overburdened teacher to work out special programs for the exceptional pupils in her grade.

These can be only makeshifts and time-marking procedures. The greatest hope lies in those experimental schools that are working definitely upon the problem.

Sixth, whatever special educational programs are adopted for the gifted pupils, their health must be the prime consideration. Pedagogy must, as always properly, wait upon hygiene. However brilliant a child may be, if he lacks good physique and good health, it will be extremely unwise to add pressure in the schoolroom. Either his body must be first put into condition or, that being impossible, his intellectual pace must be modulated accordingly. Given first-rate health, which Terman finds to be the rule among this class of children, a super-typical pupil can be guided rapidly and far into the greenest educational pastures. For them there is more danger in under-pressure than in over-pressure.

Seventh, since it appears that gifted children are less superior physically to unselected children than they are intellectually, it is essential that greater emphasis in their education should be placed upon play, games, recreation, and general physical culture. There will be two distinct advantages accruing from this: motor control and coördination will be developed, and the whole organism will be kept in trim for the strenuous intellectual fray to which these children are committed. The playground and the gymnasium are even more indispensable, if that were possible, to the gifted than they are to the general mass of children.

Importance of the social aim. Finally, since education for variability is education away from the group, as Horn makes clear,¹ constant emphasis must be placed upon the social aim in the training of these children. The average run of folks, we have seen, resents deviation and superiority, and glorifies the common man. Witness, for example, the gibes and polemics of the daily press directed at those individuals

¹ *Education of Children*, Chapter vi.

who merit any claim, however indirect, to being "super-men." While the mass needs to set itself right in its attitude toward the geniuses that rise from its midst, there is no question but that those same geniuses must be trained definitely and consistently to dedicate themselves to the advanced service of the race. Otherwise, as Counts warns us,¹ variational training of the super-typicals may indeed prove a menace. If, however, in our training of gifted children we aim to arouse and cultivate in them a deep sense of social obligation to devote their talents to the larger human purposes, rather than to self-aggrandizement and selfish ends, not only will they abundantly return to society all that has been invested in them but they will themselves be nurtured in desirable human attitudes of unselfishness, modesty, and sincerity.

TOPICS FOR SPECIAL STUDY AND REPORT

1. Are you in agreement with the opinion expressed in the first part of the chapter that it is becoming progressively more difficult for a gifted poor boy to win the place of leadership for which his abilities would, by proper training, entitle him?
2. Study the provisions made in the schools of your own city for the education of gifted children. What improvements are to be desired?
3. Note down as many reasons as you can think of why special consideration should be given everywhere to the education and training of super-typicals.
4. Why is not high I.Q. always correlated conspicuously with high A.Q.? Ought it to be?
5. What has been your experience or observation concerning "grade skipping" as a means of more rapid school progress for capable pupils?
6. Compare the Dalton and Winnetka systems of individualized instruction. How would you personally enjoy school work organized on one or the other of these bases? What has been the nearest approach you have ever made in your school experience to individualized instruction?
7. Select a unit from a course of study in use in some grade of the ele-

¹ Counts, George S.: "The Social Purpose of the Education of the Gifted Child"; in *Educational Review*, vol. 64, pp. 233 ff. (October, 1922).

mentary schools of your community, and plan out an enrichment of it that would be suitable for a special class of gifted children.

8. Has your experience with children indicated to you the likelihood of there being any relationship between exceptional ability on the one hand, and pathological traits or tendencies on the other? Cite cases illustrating such relationship or lack of relationship.
9. What dangers do you see in premature forcing of exceptional children by doting parents, with the idea of making prodigies out of them at five or six years of age? Have you known of such cases?

CHAPTER VIII

THE MENTAL HEALTH OF THE PROBLEM CHILD

The problem child in the school. For a dozen years or more it has been the author's custom, whenever a class of teachers in training have returned from their semester of apprenticeship in the public elementary schools, to inquire of them what outstanding problems they have met in their teaching experience upon which they would like help and advice, or upon which they would be glad to conduct a bit of research. Invariably, along with the bugbears of discipline, and motivation, and the arousing and holding of attention, and other more or less strictly pedagogic questions relating to the teaching art, there appear earnest queries on this order: "What can I do with a tattletale?" "How can you wake up a pupil and get him into things?" "I have been much troubled by the rudeness of a child; how can rudeness be overcome?" "I am sure one of my children is tricky and deceitful; what could one do in such a case?" "One child in my room is extremely irresponsible; how might I help him to develop an attitude of responsibility toward his work?" "Can anything be done with a temperamental child?" "With a lazy child?" "A nervous child?" etc., etc. And so the queries run!

In the following pages we shall turn our attention to troublesome children of these and other related types, in the hope that mental hygiene may have some practical and wholesome suggestions to offer in the schoolroom training of such nonconforming individuals. In our discussion we shall assume throughout that the problem child is not below the average in his mental ability, but that his difficulty is

largely if not entirely one of social adjustment. We shall assume also, while very frequently maladjustment has a distinctly physiological basis, that the general condition of organic health in these children is in most cases satisfactory, and rarely sufficiently unsatisfactory¹ to be a strongly causative factor in their problematic behavior.

1. *The deceitful child*

Reasons for deceitfulness in children. One of the more frequently found types of troublesome children in the schools is the deceitful or untruthful child. The forms of deceit of which these children are guilty range all the way from occasional willful falsifications to downright and persistent trickiness and slyness. An analysis of the causes operating in children to inspire them to deceive reveals a considerable number of factors. An overimaginative child, for example, may concoct the most bizarre stories and tell them with complete evidence of genuineness. Occasionally these stories are manufactured by a child to explain his absence from school or to cover up some dereliction of which he has been guilty; occasionally an insatiable thirst for the approval and envy of other children may be combined with an imaginative nature and eventuate in the most surprising and often unconventional tales. Imaginative girls in the pubescent and early adolescent period are quite frequent offenders in this regard, and the most lurid and exciting accounts of adventures, parties and other escapades that occurred only in their fanciful imagination are recited by them with much gusto and more persuasiveness. Teachers as well as mates may be taken in by the apparently genuine rehearsals to which they listen, and frequently serious con-

¹ Dr. Carter finds that all problem children manifest at least some slight degree of physical defectiveness, much of which is of course remediable. See his paper in *Mental Hygiene*, vol. x, no. 1, pp. 75-84. (January, 1926.)

sequences follow, especially if the stories are of such a nature as to reflect discredit in any way upon the character of another.

Again, deceitfulness in a child may be a product of social imitation. If a parent is dishonest or unfaithful in any relationship in which his children perceive him — business, social, personal, or family — it is hardly to be expected that his offspring shall turn out otherwise. The mother who greets a caller with smiles and honeyed words that are changed to frowns and vituperations as soon as the door has closed upon her; or who misrepresents to a selfish or exacting husband the cost of a dress or the nature of her activities during the day; or who repeats with sumptuous additions the gossip and fabrications of the neighborhood; the father who conceals the truth of his whereabouts the evening before, or who boastfully misrepresents the amount of his income on his tax returns — these parents are contributing poorly to the development of attitudes of honesty and truthfulness in their boys and girls. Beyond the home circle also there is much of adult falsification and deception in the social experience of children which can hardly fail to make the path of untruthfulness look easy and attractive to them. Perceiving the universality of untruthfulness in the affairs of men it would be strange indeed if many children did not practice themselves on occasion in this gentle art.

Pure selfishness also may seek protection by frequent recourse to deception. Awareness of the fact that one can escape disfavor, reproof, and even punishment by prevaricating is builded long before the child ever enters school, and builded sometimes so indestructibly that a teacher must summon all her art to aid her in undermining it and building a new consciousness of honesty and straightforwardness. After all, self-defense is one of the most primitive traits we have in our make-up, and falsification and perjury are very

often found to be allied with it as its most trusted because its most selfish protagonists. Untruth uttered as a way of escape from punishment reflects a state of mind in which fear and cowardice are dominant.

Slyness and trickiness — i.e., deceitfulness in its most virulent forms — when found in a school child may be indications of either a defective heredity or a vicious extra-school environment, or of both. When deceitfulness has reached the point where it yields such furtive fruits as slyness and trickery one may be sure that something more than chance or occasional observation of these wiles is responsible; nothing short of actual opportunity to see them at close range and learn to imitate them can explain the facility which an occasional child manifests in practicing them. An example of this extreme type of deceitfulness, taken from the writer's case records, will indicate the influence exerted by the environment.

Raymond, fifteen years of age, had given trouble to every teacher he had had. One of them asserted that it was hard for Raymond to tell the truth; another, that Raymond would much better have been named Reynard; another, that he was so smooth that he could never be caught, but that she was certain he was at the bottom of every disciplinary situation that arose in the school-room. Raymond's movements were quick, and his eyes roved and shifted constantly; yet when, off their guard for a moment, they did rest fleetingly on yours, you caught a momentary twinkle that was however straightway dimmed and beclouded by a characteristic hardness and bravado that fell like a shadow across the entire countenance. Occasionally Raymond would be actually detected in some such misdemeanor as appropriating an apple or other tid-bit from some one's desk, setting up a situation that brought suspicion on another, cheating at a lesson, and the like. On one occasion he had several difficult words neatly written on his shirt-cuff, which he drew down below his coat sleeve to reveal correct spellings as they were needed. But for the most part Raymond was undetected in his misdeeds, and was possessed of a remark-

able facility both in keeping himself clear of suspicion and of freeing himself from it when it lay upon him.

At last, however, Raymond was caught playing truant from school after several days of absence, the reason for which he assigned as illness of his mother. Interviews followed in which it was disclosed that the boy's home associations were highly tinged with deceit and knavery. The family was reputed throughout the neighborhood to be dishonest and sly; the father was notorious for petty thievery, and the mother for being a very easy-going woman with decidedly low standards. It was even suspected that both parents had actually connived with Raymond in the truancy episode for the purpose of getting certain light work done during a house-cleaning foray. Not at all loath to change his form of occupation, Raymond had apparently fallen in with the scheme enthusiastically. But for the suspicions of his teacher his vacation might well have been prolonged several more days. As it was, the jig was up, and a sadder but no wiser Raymond sat in his accustomed place the following morning. Shall we blame Raymond? Or shall we blame his parents?

Reëducation of the deceitful child. Excellent results may be expected from reëducation in all save the most inbred cases, and obviously the next step after the nature of the difficulty has been analyzed out is reëducation. The teacher should recognize in the first place that a certain generous amount of exaggeration and misstatement is perfectly normal to active, approval-thirsty children, and that those who sometimes amaze and perchance stagger her by their apparently utter disregard for truth are in no great danger of growing up to be adult liars and deceivers. It is the way of normal, happy-go-lucky childhood, and this way must be accepted by her as a matter of course. When, however, there is accumulating evidence that a pupil, whether through social imitation or through the selfish desire to escape responsibilities, punishment, unpleasant consequences, and the like, is persistently and maliciously falsifying, it becomes a legitimate and proper part of a teacher's function to initi-

ate corrective measures. First of all she should see to it that the responsibilities which the child is evading are not themselves in any way unfair or inappropriate or unreasonable. Their reasonableness being established, the recalcitrant child should be shown sympathetically but in a thoroughly straightforward manner the sure future as well as present consequences of persistence in deception and stratagem. He should be impressed with the fact that other children no less favored than himself find it possible to be truthful; that frankness and honesty cannot brook the opposite traits, even among children; and that those who truly achieve have always been, are, and must continue to be those who meet their obligations squarely and honestly. While these new conceptions of truth and frankness are being brought to pass in the pupil's mind, the teacher should take particular pains to show her approval and pleasure whenever there is good evidence that the child is really improving in his attitude toward honesty. Stories or incidents that indicate the value and worth of truthfulness, provided they be not too ostentatiously moralizing, will prove helpful when presented to the entire class.

For most of the common varieties of untruthfulness that a teacher must reckon with, and indeed for many of the more extreme cases of deception, the procedures suggested in the preceding paragraph will suffice, if reënforced and supplemented intelligently by the home, to engender the new attitude. For the occasional child, however, whose background and early training have been all in the other direction, more strenuous and determined methods may frequently be found necessary. In extreme cases of this type, where little sympathetic coöperation can be looked for from the home, unless the teacher has considerable time at her disposal, and unusual ability along the lines of the reëducation of problem children, she can hardly expect to achieve

any permanent and striking results with a sly and tricky child. For such social nonconformists the skill and facilities of an expert clinician or other child guidance expert are indispensable. The increasing tendency of at least the larger communities to make available such opportunities for school authorities and welfare workers is deserving of the highest commendation and support of every teacher and every counselor of youth.

2. *The disobedient child*

Responsibility for disobedience often rests with the home. Disobedience, like most other negative traits in children, has a definitely instinctive basis. It is unquestionably an attribute of our original organization to seek freedom from constraint and repression and to avoid whatever responses chance to be in conflict with the selfish nature that we have inherited from a selfish past. From the earliest months of infancy the child clamors for his own way, and not infrequently succeeds in getting it at the hands of a parent who is willing to gratify his whims. Disobedience is resorted to inevitably as a means of avoiding such restraints and controls as are placed around him, especially after he learns that he is something of a freewill agent and can by the simple act of disobeying satisfy his own personal inclinations.

Most children, however, are trained more or less effectively to obey their parents; they learn the wisdom of controlling their selfish desires and of conforming to the expressed will of their elders. Only occasionally and in somewhat extraordinary circumstances are they guilty of willful disobedience once they have caught the general attitude of obedience. There must obviously be something operating in the occasional child besides the instinctive urge for freedom and self-determination to make him disobedient and unsubmitive.

So far as the home is a guilty factor, the chief responsibility for a child's rebellion against what authority or convention has assigned for him to do is to be found in the lack of definite and specific training in obedience in the pre-school and early school years. If carelessness and irresponsibility are permitted in the home, it is hard to see how a child can possibly build up any positive attitude toward his obligations. Allowed to have his own way in everything, never held down to strict performance of specific tasks, and never held to account for directions given or for work assigned, a child is by way of being confirmed in a negative and irresponsible attitude toward authority and obligation. And when he gets to school, where there are numerous rules and precepts to be observed, is it any wonder that, finding himself completely unable both by training and inclination to submit conformingly to them, he becomes rebellious and unamenable to discipline?

The school may contribute. The school also may contribute very materially to the fostering of the disobedient attitude in pupils, particularly in those whose lack of adequate home training makes them peculiarly liable to non-conformity with regulation and convention. The teacher who goes out of her way to establish rules and requirements for every conceivable situation that might arise, and whose loftiest conception of discipline is expressed in the multiplication of petty prohibitions, is setting the educational stage perfectly for the appearance of all manner of stratagem, deceit, and disobedience. In such an atmosphere, it is far easier to disobey than to obey, and the rewards are much more delectable.

Prohibition of whispering, for example, now fortunately less common in our schoolrooms, is a senseless rule that no teacher was able ever to enforce completely, and every teacher who sets out to do it is merely putting irresistible

temptation in the way of her pupils. The furtive and undiscovered disobedience such as occurs in the prohibition-bound schoolroom, is apt to be, of all kinds of disobedience, the worst from the standpoint of mental hygiene, since it remains uneradicated and the perpetrator is confirmed in highly undesirable habits and practices. A schoolroom girded by prohibitions and congealed in over-formalized routine is a veritable school for deception and disobedience.

Reëducation and means thereto. The reëducative process required by a disobedient child demands the active coöperation of home and teacher. In the home greater effort must be made to discourage disobedience. This may be done in a variety of ways. One of the most effective consists in providing abundant opportunity for positive and desirable activity in place of forbidding undesirable forms of activity. With an emphasis that is positive rather than negative, with a premium placed upon genuine and healthful activity and very little attention paid to the unprofitable and undesirable ways of reacting into which all children fall, the temptation to disobedience will be materially reduced. Parents whose demands and specifications are all negative must expect evasion and deception and refractoriness in their children. The fewer the prohibitions the fewer the infringements.

But paucity of prohibitions does not imply laxity or carelessness in enforcing those few positive regulations that are set up. One of the most frequent sources of the disobedient attitude in a child is to be found in the failure of the home to build up respect for and amenability to certain simple but fundamental rules of conduct and decorum. Conformity with these regulations should be not only expected but insisted on absolutely by the home. Only in this way can a realizing sense of obligation and responsibility be established. Regard for what is right and proper in most cases leads inevitably to obedience to it. Disobedience and non-

conformity are weeds that breed from a soil which has not been sown with responsibility and obligation.

Still another source of rebellion found frequently in the home training of children is the tendency to make and keep them as dependent as possible upon the judgment and the decisions of their parents. Denied the right of self-determination by officious and effusive parents who smooth all their pathways, make all their choices, supervise all their activities, and anticipate all their needs, children are apt to chafe more or less consciously and are tempted into rebellion and disobedience — overt or open — as a means of escape from their bonds and of finding surreptitiously some semblance of individuality and independence.

Uprooting disobedience in the school. In the schoolroom, the best panacea for disobedience lies in winning the coöperation of the nonconforming child. In most cases such a pupil has never been brought to realize and appreciate what the teacher is trying to do. He feels little or no sympathy with either her program or her methods. He does not catch her viewpoint nor comprehend her aims. She stands for repression, discipline, application, unsympathetic driving. Nobody has taken the trouble to set him right. The cartoonist and the wag and the man in the street generally paint her in somber tones and endow her with a most unattractive and even forbidding personality, and depict a schoolroom as being little improvement over a cell in the workhouse. Steeped in such propaganda from the earliest school years, it is not remarkable that any boy of parts should have a highly distorted conception of the whole educative process, and should consider his own position to be on the defensive so far as participation in this unattractive process is concerned. And if a child has absorbed from his home environment scant respect for rules and regulations it must not be presumed that as he progresses through

the school system he will without definite and persistent counter-training develop conformity and obedience to the obligations continuously placed upon him.

It becomes, therefore, incumbent upon a teacher to strive to uproot whatever unfortunate misconceptions a child may bring to school with him. And her most likely way of accomplishing this end lies in making an earnest and determined bid for the recalcitrant child's eventual complete co-operation. By dint of a sincere interest manifested in his welfare, a plainly evident desire to help and advise him along the lines of his highest interest, a solicitude for his present progress and his future success, she should experience little difficulty in arousing in the child a sense of responsibility and a willingness and even an eagerness to put himself into harmony with the general aims and purposes of the school. This broad and general attitude once established in a child, operates powerfully against any very striking recrudescence of the rebellious spirit. Few rules will be found necessary in a schoolroom where the pupils have been taught to understand the teacher's purposes and to share them with her. They will not stop in a problematic situation to choose whether they will break or keep a specific rule or command, but rather will comport themselves as becomes participators in and sharers of a common task.

3. *The emotionally abnormal child*

(a) **The temperamental child.** In contradistinction to the emotionally stable child, the emotionally unstable or abnormal one may be defined as a child whose emotional reactions are too easily kindled, exercise too strong an influence over his general behavior, and are likely to be brought under control only with great difficulty.¹ Pronounced neurotic

¹ Guthrie distinguishes two types of over-emotional children, the unrestrained emotional type and the restrained emotional type. They have

symptoms are readily discernible in these abnormal types. Small matters worry them; the slightest rebuffs annoy and discourage them; they are oversolicitous of the affection and approval of others; they work in fits and starts, now irrepresible, now torpid and inert; they are highly imaginative and impractical; they rebel at routine and discipline, and crave freedom from all restraint; they tend to be testy and argumentative rather than coöperative and obedient; they suffer often from a sense of inadequacy and inferiority; they are apt to be very lovable, and are hungry for a sympathy and an understanding which they rarely find; their enthusiasms outrun far their capacity for steady and concentrated work; they are lacking in ordinary common sense and their judgments are apt to be perverted.

The case of R., an eleven-year-old. The following partial record, made at the time of R.'s first visits to the clinic, is typical of the temperamental child of the rather unrestrained type.

R., eleven years of age and in the fourth grade, has for some time done extremely unsatisfactory work and has caused the principal of his school considerable difficulty because of his attitude in the schoolroom. Increasingly, in the past two years R. has been a cause of trouble in most of the classroom contacts. He has also been a source of much unhappiness in the home, especially in his relationship to a younger brother whose temperament and disposition are exactly the opposite of R.'s. This younger brother gets along well with everybody else however, and is unusually popular. R., who would like to receive the attention of others and desires to mix with his mates on friendly terms, finds it impossible to do so, and is jealous of the popularity of his brother. In school, as at home, R. tires easily, loses interest quickly in tasks assigned and

most of the characteristics enumerated above in common, but the latter type possess much stronger control over their feelings than do the former. Apparently indifferent to those situations against which the unrestrained type reacts strongly and characteristically, they brood and suffer in silence, but none the less poignantly.

becomes very irritable and unhappy. His teachers complain that he is sullen, querulous with other children, disagreeable, very resentful of discipline and occasionally defiant. He is very shy and self-conscious, and appears to suffer acutely from his temperamental peculiarities.

The home situation in R.'s case is far from ideal. In her frequent talks with the teacher and the principal, R.'s mother does not hesitate to discuss the whole problem of R.'s maladjustment in the presence of the child, who in consequence is now morbidly conscious of the fact that he is regarded as different from other children. She shows him by her attitude and even tells him frequently that she thinks more of him than she does of his brother. It is quite evident that her oversolicitude for the child is and has for some time been an obstacle and a hindrance rather than a help to R.

While R.'s physical health was found to be on the whole satisfactory, his nervous condition was obviously draining away too much of his energy, and it seemed advisable at the clinic to provide a definite change in his way of living. He dropped out of school in the spring and was sent to spend several months on a farm in the country where marked improvement in his attitude as well as in his physical condition ensued. Returning in early September, he was placed in a different school. The following is taken from the clinic's record four months after the opening of the school year.

There has been very marked improvement in R.'s general attitude toward school work, toward his teacher, and toward other children. While he still does not do first-class work and shows some of the same temperamental attitude as formerly, he has not been in any sense a disciplinary problem. He is now also coming gradually to mix with other children on a much more natural basis. His mother feels that there has been a very great improvement, although she reports that there is still very unsatisfactory relationship between the two boys and that R. is at times anything but brotherly in his conduct. Any unusual fatigue or strain is still quite sufficient to upset his work at school for several days. It is very evident that R. still has ahead of him a long and difficult process of adjustment to his surroundings.

Reëducation of the temperamental child. The problem of reëducation in the case of a temperamental child is oftentimes a very baffling one, chiefly for the reason that abnormality of this sort is due principally to the inheritance of an unstable nervous system. In so far therefore as the emotional difficulties of a child are clearly the resultant of unfortunate heredity, nothing can be done. It is a fact, however, that constitutional abnormalities of this sort can be and usually are aggravated by improper example and training, particularly in the home. An emotionally unstable child, being intimately associated from his earliest years with an emotionally unstable parent, has a slim chance indeed of receiving the kind of training he needs in discipline and self-restraint. Instead, the innate abnormality and neurosis are almost certain to be brought out by the home influence. Where there is this condition to contend with reformation is next to impossible.

The offending parents will have to be made over before much can be done for the child. Once they can be brought to understand the significance of their own influence over their children, many parents who are possessed of an unstable nervous system are willing and anxious to take themselves in hand and initiate a heroic system of self-discipline which will at least ameliorate conditions. Many others, however, are incapable of appreciating either that they are themselves poorly adjusted emotionally or that they are in any way responsible for the emotional abnormality of their children. Temporary separation of parent and child, as was achieved in the case of R., outlined above, is frequently advisable.

The part played by the teacher. The responsibility of the teacher with reference to a temperamental child is extremely great. In the first place, it is of the highest importance that she shall strive to cultivate a sympathetic under-

standing of this maladjusted type. She could make no greater error than to treat such a child unsympathetically. Yet unfortunately the rank and file of teachers, untrained in the temperamental vagaries and idiosyncrasies that abound in the unrestrained emotional type of individual, are likely to be utterly lacking in sympathy for children who exemplify it. If a teacher can but be brought to comprehend the causal relationship of unstable heredity and harrowing home training to an overemotional and neurotic child, she can hardly fail to pity rather than blame her small charge.

Out of the teacher's understanding of the problem and her sympathetic desire to aid the child to cultivate at least a semblance of emotional control, there should grow a strong determination to achieve some measure of success in reëducation. With all the patience and tact at her command, she should set out to win the child's confidence and even his affection. Only after this has been accomplished may she expect to bring to pass any very radical change in his conduct and control. She will need to so organize and manipulate the routine of the school that occasion for worry and discouragement in the case of the temperamental child will be rare. It will be often necessary to humor his moods and whims, and to surround him with the barest minimum of restriction and repression, due regard, of course, being had always for the best welfare of the other children. Frequently it will be wisest to disregard attitudes and viewpoints which in other children could hardly be ignored. All this must be done, however, without permitting the child to realize that any special program is being carried out in his behalf, or indeed that his needs are any different from those of the other pupils. Nothing could be worse for his mental health than to emphasize his temperamental shortcomings and peculiarities. Appearing to be like everybody else, and to be receiving the same treatment as everybody else, yet

in reality being quite different and being handled differently by his teacher, the overemotional child may in the course of time adjust more and more harmoniously, though rarely completely, to the demands of the school.

(b) **The negative child.** Still another type of problem child whose difficulty expresses itself in emotional peculiarities is the generally negative child. The child of the unrestrained emotional type is positive and aggressive in his behavior; the child of the restrained emotional type is positive and non-aggressive. The negative child is unlike both in that such emotional expression as he does have is neither positive nor aggressive. His feelings are weak and lacking in driving power. He neither seeks companionship nor enjoys it when it is thrust upon him. He is solitary, secretive, retiring; he is bashful and shy, timid, colorless. He rarely asserts himself or tries to put himself forward. He shrinks from making the other children — or the teacher — aware of his presence. He shuns responsibility, and dreads to be in the limelight. He seems to thrive best in some corner or nook where he will be overlooked by every one. Far from longing secretly after companionship and *camaraderie*, he is content to be passed by unnoticed.

Quite unlike the temperamental child, the negative child is likely to be a product of an unfortunate environment rather than of an unstable germ plasm, although undoubtedly the latter factor does play a strong part in many cases of negativity in children. Like the temperamental child, however, the negative child is extremely likely to be found already a victim of his particular type of abnormality when he enters school, and unless something positive is done quite promptly the maladjustment will increase rather than wear off when the school contacts are brought into play. It is to the home experiences of the negative child that we are then to look for the source of his maladjustment.

Effects of over-repression. Probably the most common defect in the home training of a child of this type is over-repression. Possibly in seven or eight cases out of ten the negative attitude of a child is the fruit of too little opportunity for self-assertion and the development of initiative. Too many parents, especially if their children are naturally unassertive and inclined to be passive in their attitudes, hedge them in with prohibitions and repressions that stifle any spark of initiative that may be smouldering within. They dominate and rule them autocratically; or they guard them like rare and exotic plants from possible contamination by other children; or else they discourage them from cultivating any taste for or ability in any activity that would help them to gain self-confidence and courage. They monopolize their attention, budget their time, and pass upon all questions that arise, and, to cap it all, this type of parent frequently chides and scolds the product of such an unstimulating environment for timidity, or dullness, or even for stupidity! Verily, the child of a home wherein repression and a domineering parental attitude are the rule can hardly escape receiving the stamp of a negative and retiring personality. Only a child with spirit and courage sufficient to rebel can of himself escape the inevitable consequences of this type of early training.

The case of C., a kindergarten boy. The following case that came under the author's attention is typical of many similar ones.

C., a kindergarten boy of decidedly negative traits, was giving promise under the guidance of a sympathetic teacher of blossoming out into quite a positive and self-assertive individual. But every step of the process of reëducation met with unintentional though none the less discouraging resistance on the part of the home. C. was scolded on the slightest provocation by his mother, and made subject to the severest discipline. He was nagged and found fault with until by the time he entered the kindergarten he was a

timid, retiring youngster who stared with half-frightened awe upon children, teacher, and even the play equipment of the room. On more than one occasion he came to school in the morning with swollen eyes and bitter tears upon his cheeks from some punishment or scolding that had been heaped upon him. Within the first half-year C.'s teacher so far succeeded with the child that he participated quite normally in the activities of the group, even venturing now and again to assume a modest kind of leadership. He was a willing little worker and the group enjoyed thoroughly his participation. One morning — it was during the exercises celebrating Washington's birthday — while C. was taking a prominent part in the activities, his mother walked unexpectedly into the room! The moment his eyes fell upon her, C. dropped the flag he was carrying, checked the pleasant murmurings upon his lips, and slunk dejectedly and half-frightened into a nook in the play corner. "That's exactly the way he acts at home!" his mother exclaimed to the teacher. "He shuts up just like a clam!" The latter led the woman from the room, and together they watched the children, unobserved, through a thinly curtained window in the door. C., noting his mother's departure, gazed helplessly after her for a minute or two, and then, caught in the merry march, he fell again in line and was soon behaving as naturally and vociferously as if nothing had happened. His mother, overcome with surprise at beholding the unwonted spectacle of C. actually asserting himself, demanded of the teacher to be told how she had achieved it.

It was just the opportunity the teacher needed, and she made the best of it.

Reëducation of the negative child. The process of re-education of a negative child like C., whose difficulties are the outcome of an oppressive home environment and have no basis in any physiological or anatomical peculiarities, such as poor health, immaturity, overconsciousness of deformities, and the like, is a slow one, but its prospects are good. What must be done at all odds is to instill in the child an attitude of self-confidence and trust. Without the sympathetic and intelligent coöperation of the home, particu-

larly of the mother, this is next to the impossible, for after all the influence of three or four hours out of the twenty-four can hardly be sufficient to neutralize the home resistance and in addition implant a new conviction and a new attitude that will reform and revamp the whole personality. If the parents, however, can be convinced of the error of their ways, and can be induced to adopt new tactics and a new front, most gratifying results may be achieved. More freedom; more self-assertion; greater opportunity for taking the initiative, for making choices and decisions, for meeting and solving difficulties in the way; less domination; less assertion of parental authority; more encouragement of originality; individuality; more opportunities for self-expression and for development of a belief and a faith in one's self — these are the home controls to be applied.

In the schoolroom, paralleling the new home procedure, the teacher will need to promote social intercourse with other children in a way designed to challenge and coax out the shrinking, retiring nature of the negative child. Without arousing in him undue consciousness of his shortcomings and without endangering the process of reëducation by permitting fears and dreads and timidities already present to be intensified, the teacher must make carefully studied efforts to get the child early into active participation in the group activities, and must take pains to indicate her approval when he succeeds. This process should not be hastened too zealously; the negative child needs generous periods of idle watching of what others are doing; often the sheer interest thus inspired will prove sufficient after a time to stimulate the reticent child into eager comradeship with his mates. Often the merest bit of manipulation by the teacher is sufficient to galvanize such an individual into eager and happy action. Once a beginning has been made, progress should continue moderately until the negative

child has been in a sense made over into the child of reasonable self-confidence, initiative, and assertiveness. If a complete transformation cannot be worked, at least the foundations of a more positive and aggressive personality may certainly be laid.

4. *The indifferent child*

Typical characteristics. Quite distinct from the negative child in the nature of his difficulty, though resembling him often in his attitude and behavior, is the indifferent child. Typified by a careless and negligent bearing, unresponsive to the appeal of ordinary school tasks, uninterested in his work, inattentive to the thing he is expected to do, bored and depressed by the daily routine, never or rarely identified with those pupils who carry the brunt of the schoolroom fray, evasive of responsibility, undependable, rarely lukewarm and characteristically cold, the indifferent pupil possibly causes as much despair to the teacher as almost any other type of problem child. Often a center of disaffection for the less strong-minded children, a notorious causer of disturbance and an avowed shirker of duty and task, the indifferent child may disrupt aggravatingly the routine of an otherwise busy and industrious school, and drive almost to distraction the helpless, because uncomprehending, teacher.

There are, of course, all degrees of indifference found among problem children of this general type. Their abnormalities may range all the way from an inward distaste for assigned tasks — which does not however manifest itself in outward negligence — to a most pronounced and persistent contrariness to the school program. The former individuals may so identify themselves with their work as to cause little serious difficulty to the teacher; the latter rarely if ever so identify themselves, but constitute a continual problem to those who would train or teach them.

The case of R., a twelve-year-old. The following case is cited as typical of the indifferent child:

R., twelve years of age, has for two years or more caused both his parents and his teachers no end of anxiety because of his attitude. At times he has been guilty of "smart" conduct in the classroom, apparently obsessed to get the attention and approval of the other pupils. He has made many promises to his teacher and his parents to do better, but his improvement in such cases rarely lasts longer than an hour or so — and never a whole day. His general attitude toward his school work is one of complete indifference. He has steadily attempted to get out of things and would not admit his wrong until he knew that lying was of no use whatsoever. The teachers have been in agreement that if he but cared to try he would be capable of doing very good work. They affirm, and R.'s parents concur in the opinion, that the boy just doesn't care. An older sister is a high-school student, and has the reputation of being energetic, interested in her studies, and ambitious to make something of herself; in most respects she is the complete antithesis of her brother. R. shows no prolonged interest in anything, and is utterly irresponsible. He cannot be trusted to perform any task assigned to him. He admitted at the clinic that he has not done good work at school, and said he didn't like school and wanted to leave and go to work. Mentally and physically R. is a thoroughly normal twelve-year-old boy. In his clinic visits he behaves in a somewhat jaunty and casual manner; his attention wanders very quickly, and his personality appears a very difficult one to estimate.

An indifferent attitude suggests immediately either something wrong with the child or else something wrong with the teacher. Among the internal causes which might be responsible for indifference and inattention on the pupil's part should be mentioned such physiological factors as poor nutrition, drainage from infected adenoids or tonsils, carious teeth, constitutional inferiority and the like, and such psychological factors as grief or worry about affairs at home, lack of intellectual thirst or curiosity, a jaded and sophisticated mind, poor mental habits of concentration and con-

trol, etc. To these should be added the stupor and fatigue that are marks either of excessive work performed outside of school or else of insufficient or irregular sleep. Such external causes also as overheated classrooms, humid air, poor ventilation, too long periods of application, uncomfortable furniture and the like must be taken into account as possible sources of indifference and apathy in pupils.

Importance of the teacher and her methods. In the absence of both these internal and external causatives of indifference and listlessness, indifferent and listless pupils are still in evidence in considerable numbers in our schools, and it is to the teacher and her methods that we must look for the real source of the difficulty. There is one type of teacher-specialist who is so enamored of the subject-matter which she teaches that she loses sight of boys and girls. Her point of approach and her general method of procedure smack of the logical rather than of the psychological. Her pupils are there before her, but they are scarcely differentiated from the fixtures of the room. Their interests and viewpoints receive scant recognition in the orderly and reasoned stages through which the lessons proceed. Those among them who are more capable, or who react pleasurably to this type of teaching, suffer no violence; but those whose minds work differently, who perchance are not built of such firm stuff, seek release and relief from such teaching in an apathetic indifference that is at least not unpleasant to them, though it be highly so to the teacher.

There is another type of teacher who seems wholly unable, regardless of the training she may have had, to surround her lessons with an appeal and attractiveness that other teachers succeed in achieving. In consequence, her teaching tends very soon to become monotonous and uninspiring. If she senses the importance of good motivation she appears wholly unable to attain it. There is a

sameness about her lessons that stifles interest and enthusiasm. Under her, children come and children go, but she alone goes on forever. With the naturally intellectual pupil, or with the slow, faithful plodder, this type of teacher is frequently successful, at least to a moderate degree; but to the child who is borne forward by no thirst for wisdom's fount and to the child who craves color and variety and life, she makes no positive appeal. Indifference becomes shortly imperviousness, and sluggishness, and open revolt. At its best there is always grave danger that the process of education may degenerate into a changeless monotony that will blast and desiccate the exuberance of child life. Against such a calamitous outcome of her intercourse with her pupils, it behooves every teacher to strive with all the skill and energy at her command.

Reëducation of the indifferent. The reclamation and reëducation of an indifferent and apathetic pupil may involve several procedures. In case the cause is physiological in nature, medical and clinical attention may be necessary. If there is disharmony or some other disturbing factor in the child's home life that is operating to draw his attention persistently away from his schoolroom tasks, something may need to be done looking toward straightening out the difficulty and enlisting the parental coöperation in salvaging the personality of the child. More than likely, however, the cure of indifference and indolence lies more directly and immediately in the hands of the teacher. It may be that the lessons she assigns or teaches are so cut and dried that they make no appeal, offer no challenge; it may be that their aims and purposes are not understood, that their value cannot be comprehended; it may be that they are lacking in variety and color, and because of their drabness only the more enterprising pupils have the persistence needed to participate in them; it may be that very little use is being made of the in-

stinctive urges that are clamoring for expression; there may be too much pouring in and not enough releasing.

Many a case of indifference is traceable to the complete failure of the teacher to discover the special lines of interest that a pupil may have; frequently a genuine interest manifested by a teacher in the extra-school activities of a child, his favorite games, haunts, amusements, books, avocations, and the like, has been the lever that has pried him out of his intra-school lethargy and indolence and raised his whole performance onto a definitely higher plane. No normal pupil probably ever existed who did not have some favorite pastime or some other interest that could be made a distinctly educational asset, and the teacher must unearth and turn to account these forces — for forces indeed they are. There is no pedagogic sin in having an indifferent pupil in one's room; the sin lies in permitting him to remain indifferent for any great length of time. Occasionally a teacher is guilty of confirming an indifferent child in his indifference by assuming that because he shows no earnestness and ambition in his tasks he is not capable of animation and of concentration upon them. The difficulty is merely that such a pupil has never been really aroused to the realities of the schoolroom situation.

School procedures often tend to create indifference. It would be exceedingly interesting if we could know what percentage of the normally capable pupils who leave our schools as soon as the law permits drop out principally because of their general indifference to the educative process. It would unquestionably be a high one. So far is our general educational procedure removed from external reality; so artificial are many of its aims and methods; so antiquated and impractical is much of its content; so remotely does it touch life; so poorly is it adapted to individual needs and to individual capacities; so artificially divided is much of its

material; so unrelated and uncorrelated are its innumerable branches and parts; so unchallenging is it to the best within the child; so restrained and unnatural are the surroundings amidst which it is traditionally offered; so hackneyed and unstimulating is its presentation; so faintly does it reflect the glow and the throb of life — that it is remarkable how many children manage to maintain a more or less positive and receptive attitude toward it throughout the school years. It is not in the least remarkable that some manifest consistent indifference to it.

Biographical history is replete with noted persons whose apathy and indolence in the schools were notorious, yet who when they faced real life later on were found to be not wanting in ability and in perseverance. The only crumb of comfort in this circumstance is the implication that those whom the teachers turn out without seriousness and ambition may subsequently awaken and surprise the world. But how tragic that they could not have been stimulated into wakefulness in the earliest years when life was young and possibilities were at their height!

TOPICS FOR SPECIAL STUDY AND REPORT

1. Recall some case of deceitfulness in a child that has come under your attention. State the nature of the deception and so far as possible the incentive that led the child into it. What discipline was applied? Was it effective? How might it have been improved?
2. Enumerate and explain briefly some of the underlying social factors in modern community or home life that might be deemed to be responsible for the genesis of the deceitful attitude in a child.
3. Cite an instance of childish disobedience with which you have dealt. How effective was your treatment of it?
4. Does a home ever actually promote disobedience in its children? Does a schoolroom? Defend your answers, illustrating if possible.
5. What temperamental child do you know? Is he of the restrained or the unrestrained type? What is the apparent influence of his home experience upon him? Of his school experience?
6. Have you had any intimate contacts with negative children? What are the prominent characteristics manifested by individuals of this

type? Wherein do the chief sources of their difficulty seem to lie? What are their fundamental needs?

7. Cite instances of indifferent children with whom you have dealt. Discuss sources from which the indifferent attitude arises. Suggest rational methods of control and reëducation.
8. In view of the needs of the several types of problem children discussed in this chapter, what would seem to be essential characteristics in the teacher who would be likely to deal with them with some probabilities of success?
9. In what ways would the Dalton, Winnetka, or other systems of individualized instruction seem to meet happily the needs of the problem children discussed? In what ways would they be of doubtful value?
10. Contrast several types of homes that you know from the standpoint of probable salutary or unsalutary influence which they exert over the children within their several circles.

CHAPTER IX

THE MENTAL HEALTH OF THE PROBLEM CHILD

(concluded)

5. *The irresponsible child*

Types of irresponsibles. In every schoolroom there are likely to be found a few pupils who are most exasperatingly irresponsible. They cannot be depended upon to do what they are expected to do, and what the rest of the pupils do as a matter of course. Assignments are unheeded by them; references are forgotten or disregarded; individual and group tasks alike are shirked and neglected; directions given are not carried out; suggestions made are not followed up; and the ordinary responsibilities of membership in the school group are largely disregarded by these pupils. They feel little or no concern for carrying their end of the load, and are in no wise humiliated by the added burden which their disloyalty throws upon the shoulders of the faithful and trustworthy. To lay new foundations for character in these children becomes a distinct duty for the teacher who would build wisely and enduringly.

As always before undertaking lines of reëducation for the problem child, it is necessary first to diagnose the causes underlying his present regrettable maladjustment. In the case of the child who is lacking in a sense of responsibility, the causal factors are to be sought chiefly in deficient home training. Even in family circles where efforts are made actively to develop loyalties and responsibilities in the children it is often found a difficult task. A generation and more ago the happiness and comfort of home life were intimately dependent upon small but indispensable tasks per-

formed coöperatively by every one. The telephone and the electric light and the delivery man and the baker have added tremendously to the convenience of modern family life, but they have done so at the expense of the boy and the girl who before their advent were a large factor in contributing of their energy and their time to the smooth running of the home. In thus giving of themselves the children of yesterday added untold cubits to their statures.

Responsibility of the parent of to-day. The modern parent who senses the lack of stimulus to responsibility and coöperative effort in the twentieth-century home, as compared even with his own boyhood home in the last decade or two of the nineteenth century, is likely to be sagacious enough to take adequate steps to see to it that suitable substitute activities are supplied for those which he himself knew in order that the same attitude toward obligation and responsibility may be fostered in his children.

Too many parents, however, seem not to sense the changed condition of affairs, and are making the serious blunder of allowing their children to grow up undisciplined by anything comparable to the influence exerted upon the bygone generation by 'chores' and other light work incident to the household routine. For these are substituted idle hours in the streets, with the attendant ogling and heckling of passers-by; frequent resorts to cheap and questionable forms of amusement and entertainment; an absurdly overdeveloped social life with its late hours and its high nervous tension; and a general sophistication that comes as an inevitable consequence of a way of living largely divorced from the steadying and sobering forces of home life and homely tasks.

Many a parent also, recalling none too happily his own hard childhood, proposes that his children shall tread a smoother pathway than did he, and in his commendable

eagerness to shield them from all that is harsh and unpleasant goes to the other extreme of permitting them to do about as they please. There is no surer pathway to a general attitude of irresponsibility and shiftlessness than just this, praiseworthy though the spirit of the parent who sets the feet of his child within it may be. The mother who, for example, remembering her own girlhood days spent in kitchen and bedchamber, encourages her daughter to live the life of a pampered guest in the house has none to blame but herself if she grows up lacking in resourcefulness and a sense of responsibility.

Besides this type of parent who would shelter his children from the performance of menial tasks such as he was once obliged to do, there is another type who prefers to do the light routine work about the home himself rather than to be bothered by the inefficient help of a son or a daughter. Such chores as mowing the lawn, raking the grass, trimming the hedge, emptying the ash pan, mixing the bread, mopping the floor, and tidying the living-room, can be done as well by juveniles as by grown-ups, and by all means simple tasks like these should be done by them. Yet in many cases the children's help is neither solicited nor welcomed. In consequence, they grow away from responsibility exactly at the time when they ought to be growing into it. Especially is this condition of affairs likely to be true in a family in which there is but a single child. Where there are several children the care of the younger that naturally falls upon the older ones may be made to furnish an excellent situation for the development of a strong sense of responsibility, as does also the manifest need of the parent for assistance in a score of ways from those who are old enough to give it.

Home correctives. Correction of the attitude of irresponsibility consists, so far as the home is concerned, in the assigning to a child of definite responsibilities and the hold-

ing of him to strict accountability in their performance. Give the irresponsible child specific work to do regularly. Let him care for the plants, keep the books arranged neatly in the case, help with the dishes, assume charge of his own room, and the like. If at all possible, give him some animal pet, and make him responsible for its care and protection. If he has an allowance, see that he is trained in the wise investment of it. Permit him to contribute according to his ability and gift to the entertainment and the conversation of the family circle. If his grandparents or other relatives reside near by, train him to make them happy by frequent visits and remembrances; if they are at a distance, encourage him to brighten their lives by occasional childish letters. See that he does his part in church or school or neighborhood or other social affairs whose success depends in part at least upon the support of the children. Train him in habits of neatness, punctuality, coöperation. Let him assume a leading rôle in the selection of his own clothing, furnishings for his room, etc. Let him feel early that the harmony and comfort of many people in the home and outside of it are in a measure dependent upon him and his work. In these and in innumerable like ways give the child abundant and daily opportunity to do definite tasks that need to be done, and see to it that he understands their real significance as contributing palpably and helpfully to the welfare and the happiness and comfort of other people as well as of himself.

Corrective work of the teacher. In the schoolroom, the teacher must strive for similar results as those which the parents are aiming at in the home. There is no limit to the possible tasks that the schoolroom situation may offer for the training of attitudes of responsibility in those pupils whose home discipline has been lacking in this respect. To watch the thermometer and keep the temperature as nearly correct as possible with the aid of doors, windows, and ven-

tilating flues; to dust the desks and chairs regularly and carefully; to keep the blackboards clean; to care for the supply closet and keep track of any materials that are running low; to water the plants and keep the dead leaves cut away and the soil loose and rich; to arrange the reference books on their shelves; to keep the floors and yards clear of waste papers; to direct safety patrols; to have charge of the bulletin board; to keep the wastebaskets clear; to pass out paper, books, and other materials as they are needed; to assume charge of the flag; to ring the opening and dismissal bells; — these are representative duties which must be taken care of in a smooth-running schoolroom, and offer an excellent means of training in responsibility, those pupils who stand most in need being chosen for the tasks.

In addition to these routine tasks, it is good pedagogy for the teacher to be on the lookout for opportunities that may arise in which a child who needs training in responsibility can be given special stimulation. If a committee of pupils is needed for some special duties, a characteristically negligent child may be made the chairman of it provided the teacher takes pains to keep the committee an active one so that its leader will feel constantly the impetus and the urge of the other members. Similarly, an irresponsible child may profitably be given frequent supplementary reports to be made in class; if he fails to have his report ready when it is called for he will feel the disapproval of the other children, which is a powerful stimulus to coöperation in most pupils; if he does have it ready, he should receive a modest amount of praise from the teacher. Occasionally there will be opportunity for a child of this type to do a bit of monitorial work for the teacher; in such cases if he can be made responsible for helping a less capable pupil over difficult places the foundations of a new attitude may be laid within a non-conforming pupil. Sometimes a suggestion that a boy or

girl who shows the need of training of this sort ought to join some local troop of Scouts will be sufficient to inspire membership in an organization that is highly successful in developing positive attitudes in children. Occasional stories and anecdotes that play up the virtues of trustworthiness and responsibility may be expected also to suggest emulation in those who listen to them.

Fundamental needs of the growing child. In this connection a word of warning must be ventured. Children are, after all, still children, a fact which from our adult vantage point we are sometimes prone to overlook. There is danger in some quarters that in our zeal to hasten the process of developing in them grown-up attitudes and viewpoints we may become guilty of overburdening them with responsibilities and cares, and make them miserable and even rebellious. "Of course E. has time to prepare her school work!" exclaimed an uncomprehending mother recently to the author whom she was importuning for advice in the matter of how to ward off a threatened failure of promotion. "Every moment of her time I have always budgeted for her ever since she entered the fourth grade. She knows exactly what to do, and exactly when to do it!"

In the modern feverish budgeting of a child's time, and the setting aside of periods for music, drawing, social dancing, home work, and the like, some parents, reflecting in their nervous oversight of their children's lives the distraught and hectic panorama of their own adult fret and turmoil of existence, are contributing definitely to bad mental hygiene and are fostering the early development of nervous disorders in their children. One sometimes sighs for happy play hours in the open, and for restful moments of relaxation when the innumerable cables of life hang slack and loose. With all the best intentions in the world, many a parent totally misses these fundamental needs in the growing child and youth.

6. *The lazy child*

A type case. The following complaint made by a teacher sketches a typical portrait of the so-called "lazy" child:

F. is very slow in all his movements, in all his reactions, and even drawls out his words lazily whenever he speaks. When he is reprimanded for his indolence he becomes sulky. In class, when he reads aloud, he reads so slowly that the other children become listless. His arithmetic is never completed and his morning work is seldom ever begun. His desk and papers have a tendency to be untidy if he is not carefully watched.

The case of F. could be matched with scores of others by any teacher of experience. The "lazy" child is found in nearly every schoolroom in the land. Let us try to diagnose his condition in order to propose intelligently the application of corrective and reëducative measures.

In reality, what we commonly term laziness is rarely found in a child. Life is too full of tempting fields of conquest even to the child to permit very frequent or very alarming attacks of laziness. Indolence is an adult malady rather than a juvenile one. And yet children manifest in many cases what seems to be strangely like laziness. Like F., they are sluggish in their mental processes, slow in their motions, and generally torpid and inert intellectually. We must distinguish, however, between biological and non-biological "laziness." By far the greatest number of cases of torpor and sluggishness found among school children may be easily shown to have a definite causal basis in the physical condition. These are then perfectly natural or biological causatives and must be so regarded, and handled accordingly. Only a small minority of cases of unnatural laziness may be demonstrated to have a psychological or a personality basis.

Causes of "laziness" in children. There are two chief physio-biological causes of "laziness" in children. The

first of these is physical irregularity or defect; the second is the influence exerted by the growth impulse, especially during the periods of its greatest stress and accent. So far as the first of these is concerned, it is necessary only to refer briefly to the fact that whatever interferes with the normal metabolism of the body, whether it be malnutrition, toxic absorptions from infected areas, reflex nervous disturbances, constitutional or assimilative weaknesses, the overaccumulation of fatigue toxins, or the like, profoundly modifies the readiness and the eagerness for work. In very many cases the "lazy" child is but the innocent victim of a protesting physical organism that has been and is being outraged by ignorance or by actual disease or defect.

The other physio-biological causation back of "laziness" is the deenergizing force known popularly as "growth." This strange rhythmic function of the organism is something far more complex than a mere increase in height, weight, and girth. Growth is a subtle impulse that seizes almost violently upon the fibers and tissues of the body and stimulates them to the most profound and integrated reaction of which the organism is capable. During fallow periods, it is true, the growth impulse makes itself felt very lightly; intermittently, however, throughout the pre-school and the school years it makes its appearance in full accent and holds undisputed right of way. Rising rapidly during the pre-school years, the curve of growth drops perceptibly at about the time of school entrance or just prior to it, rises strongly at about the age of seven for girls and eight for boys, sags appreciably a couple of years later — at nine for girls and at about eleven for boys — then climbs again rapidly up to fifteen for boys and about thirteen for girls. Under the influence of the growth impulsion most of the excess energy of the body is being consumed, and there is relatively little vital force left for anything else.

Whenever the curve of growth, in other words, is rising in a child, distinctly less can be expected of him in his school pursuits, and the more rapidly it is rising the more profound will be the effect upon his studies. Since there will be some children in every grade who are growing fast, and since in some grades nearly every child is growing fast — e.g., the fourth and fifth — the teacher must expect to have some “lazy” children in her grade, and she must be careful to work with rather than against the great force of nature represented in the growth impulse. It is quite fitting and proper that at certain periods in his life every child should appear to be “lazy.”

“Non-biological laziness.” What then is “unnatural” or “non-biological laziness,” and what psychological basis has it? This form of idleness and indolence is characterized by actual aversion to the task at hand, without there being apparent any physiological or biological explanation. Obviously, the difficulty may be either in the nature of the task or in the mental reaction of the individual to the task. Lack of interest in the work assigned is frequently mistaken by teachers and by parents for laziness. Rather this attitude in the child may indicate laziness in the teacher-adult who does not make the effort so to present a problem or so to direct the attack upon it as to arouse and compel the interest and the animated participation of the child. What may seem to the mature adult an extremely valuable and even attractive line of study or investigation may appear to the youthful performer to be fatuous and uninspiring in the extreme. Teachers need to work over carefully the nature of the tasks they set and the means proposed or imposed for their solution, lest attitudes of genuine indolence and slothfulness be established in their pupils.

Frequently also, juvenile ambition is shattered by the

failure of the parent to recognize or acknowledge interests awakening in his child that are along lines other than his own happen to be. Thoughtless parents indeed are they who either discourage these dawning tastes or who insist bluntly upon a child's acceptance of other and more approved interests.

The case of P., a girl of fifteen. The following case is typical:

P., a girl fifteen years of age and a pupil in the ninth grade, is giving much difficulty in management. She is alleged to be willful, and is charged with teasing her sisters often. She is inclined to be rebellious in regard to what her grandfather — who is bringing up his daughter's orphaned family — wishes her to do. She is very indifferent in regard to her school work and makes little application, though pretending to want to do well. Her teacher feels that she is not interested in school and is looking forward to getting out of it as soon as possible. She feels very much that certain things which she desires very much are denied her, particularly any consent to do any drawing, of which she is very fond. Her grandfather feels that these are forms of foolishness and are useless. He refuses to allow her to do some posters which they had asked her to do at school and which she was very much interested in working on. The paralyzing effect upon her general school work of her grandfather's lack of sympathy with her passion for drawing and other forms of self-expression denied to her, appears to be almost complete.

Lack of home stimulation may also operate to make the child indolent and purposeless. It is extremely doubtful whether the comic strip in the evening paper, the supine tale in the flashy magazine, the cheap amusement house, and three fourths of the material broadcast by the radio and "listened-in" to by millions can be said to be calculated to inspire and arouse the ambition of young people; rather there is grave danger that it may have just the opposite effect upon them. When shall we have homes in abundance and a general society where there are challenging conversa-

tion, thought-provoking amusements, and related activities that stimulate the intellectual thirst of children and young people and fire them with determination to do and with ambition to achieve? The modern environment in which they grow up is too easy, too sophisticated, too self-satisfied, to challenge the deepest and the profoundest in them.

Ignorance, too, may be blamed for no little of the "laziness" of children in the schoolroom. An imperfect background of knowledge or information and lack of complete mastery of the work done in previous grades may frequently be so marked in individual children that they seize upon an indolent and passive attitude in the face of vital problems as a means of escape from unfortunate self-revelation.

Reclamation of the "lazy" child. The initial step to take in the reclamation of the "lazy" child is a diagnostic one. If there is any physio-biological abnormality that might explain an indifference to the work of the schoolroom the condition should be known, and being known should be corrected promptly. If there is no evidence of any such defect it is then incumbent upon all concerned to scrutinize with a great deal of care their own influence upon the child. The home must recognize and encourage spontaneous interests, regardless so long as they are wholesome of whether or not they fit in with the parental scheme or plan, and it must make a genuine effort to provide a stimulating atmosphere and so promote interested and eager membership in the family group.

The teacher, too, must discover these same interests and encourage their possessors to develop them as far as they can legitimately in connection with the work of the school. She must strive mightily to make the schoolroom tasks appealing and interesting in order to stimulate even the "lazy" pupil to throw himself into the fray and acquit himself with credit. She must take pains to insure that the child masters

thoroughly the material with which he works in order that there may be no vulnerable points in his scholastic armor that he will later on feel it necessary to cover up by assuming a torpid indolence. She will also indicate by her attitude that she expects faithful performance from every individual, and when she fails to secure it she will so manipulate the situation as to make the nonconformist distinctly aware that his offense is against the group and that the group actively disapproves of his dereliction.

In these and similar ways the "lazy" child may be transformed by the home and the school, working coöperatively, into an eminently satisfactory pupil and a worthy and responsible home member. After all, "lazy" children have a way of making up sooner or later, and are strangely apt to turn out to be ordinarily enterprising people in a surprisingly large number of cases. Wise handling by parents and teachers will merely serve to make this outcome more certain and invariable and its achievement more speedy.

7. The child lacking in self-control

Three main types. We shall define somewhat categorically this type of child as one who is unable to repress his immediate feelings, to restrain his impulses, and to arouse inhibiting ideas. Due often to the influence of an unstable nervous system, sometimes to a deficiently operating organism, and sometimes to out and out lack of training in self-restraint and in habits of courtesy, this condition is found to be characteristic of considerable numbers of school children, especially among those in the primary and intermediate grades. It manifests itself most commonly in one of three ways; talking out, tattling, and rudeness. We shall consider each of these types briefly.

Talking out. Save when attributable to an overnervous organization of personality, this type of lack of control is

likely to be due chiefly to a child's instinctive desire to vocalize, a tendency which is in evidence from the earliest babblings of infantile life. It may also commonly be due to other instinctive urges such for example as the desire for attention, for approval, for the satisfaction of curiosity, and the like. A typical trait in the kindergarten and early primary child, it becomes abnormal if allowed to persist much beyond the first grade of school. It should therefore be a responsibility of the teacher to discourage the tendency from the first in order to prevent it from becoming habitual in a child, and yet a teacher needs to be careful in her handling of the situation that she does not actually repress the offender.

Spontaneous talking out is likely to be an evidence and an accompaniment of good mental activity in a young child, and it will not do to curb or check that in any way. At the same time, talking out is a bad habit to foster, and by virtue of gentle but insistent admonition of the talker and by express and pointed approval of the non-talkers the teacher must work for the establishment of self-control in those children who show weakness. Sometimes open disregard of the talker and attention to the non-talkers will suffice to arouse in the former an awareness of the impropriety of talking out; sometimes an impersonal statement about the desirability of control over one's voice, made at a psychological moment, will be effective; sometimes plain disapproval of a particularly troublesome child may be desirable. Day by day emphasis upon the necessity and wisdom of developing habits of courtesy should be excellent supplementary training for those children who are prone to disturb others by talking out.

Tattling. This type is another tendency likely to be commonly found among primary children. "When I began my first appointment," said an apprentice teacher recently, "it

seemed to me that every child in that second-grade room wished to tell something about another child. 'Mary hit me!' 'John kicked me!' 'Joe threw some paper!' and like remarks seemed to be all that one heard from 8.45 until 4 o'clock. Why is it that children are all the time tattling, even on their best friends?"

The answer to the questions raised by this young teacher is not far to seek. Sometimes the same urge that drives a child to talk out in order to satisfy the desire to say something leads him to become a tale-bearer. Especially is this apt to be the case with the kindergarten and the very young child. Sometimes it is with the expectation of winning the approval of the teacher that a pupil is led to tattle into her ear. The process of reasoning followed is probably somewhat as follows: "My teacher stands for what is right and proper, and is always on the lookout for boys and girls who are doing something that is not right; here is a boy (or a girl) who is doing something the teacher would not like; I will tell her, so that she will know I am on the alert for her and so that she will be pleased to have such a valuable little helper as I clearly am." It is not bad reasoning, after all; the difficulty is, however, that the tattletale is rather giving expression to the doubtful motive of self-aggrandizement and selfish preferment in the eyes of the teacher than he is to any altruistic impulse to bring a wrongdoing child to justice in order that he may receive helpful counsel and discipline. Since therefore the tale-bearing child is obeying a wrong motive it is important that the trait be uprooted.

From the time of its first appearance in a child, tattling should be discouraged consistently by the teacher. Kindly but firm insistence that nice children do not tell tales about others, and that teacher does not like to have children in her room who are not nice; the frequently reiterated observation that little men or little women do not come running to the

teacher with all sorts of stories; unmistakable frowning upon every infraction of this rule; occasional stories featuring the desirability of circumspect attention to one's own affairs and neglect of the behavior of others — these are good procedures to be made use of in discouraging the tattletales. In ordinary cases one or another or all of these together will suffice to break up this childish impulse. In persistent cases, however, it may be necessary to deprive the uncoöperating child of certain privileges which he prizes very much, as for example the opportunity to play with the group, in order to reach down deeply into his personality and compel attention to the uprooting of the unsocial trait that is preventing him from doing what he would like to do, and what he might freely do, like other children.

Rudeness. This characteristic may manifest itself in a child as impoliteness shown to the teacher or to another individual pupil, or to the whole group; as roughness or over-boisterousness in play; as the making of thoughtless remarks; or as indulging in coarse or vulgar language, or the like. There may be several possible causes for rudeness in a child. A very common cause is the lack of any standard of politeness and thoughtfulness in the home surroundings. It is by no means rare for a child to enter upon his school career utterly unaware of what constitutes the elements of proper social conduct, for the simple but adequate reason that these qualities are absent from the environment in which he is growing up. What therefore his teacher criticizes as rudeness he understands to be quite fitting and ordinary conduct. Another cause behind a great deal of the rudeness found in pubescent and early adolescent children is the desire to show off, and the supposition that it is clever or "smart" to act up. And indeed it is likely to be so considered by most of their juvenile companions and tempters — and applauders.

Still another factor that may be operating subtly in producing rude behavior in an occasional individual pupil may be the failure to understand the teacher's viewpoints and aims and a consequent lack of deference and respect for them and, vicariously, for her. She may easily in such circumstances come to stand in the pupil's mind for the embodiment of whatever is irksome and pointless and unappealing in the schoolroom routine. The fact that in nearly every case the teacher is blameless in these matters does not make any less unfortunate the existence of an occasional school environment in which there is a real basis in the teacher's manners, attitudes and general conduct for the development of lack of respect and regard for her or for what she is trying to do.

Reëducation of these types. In setting backfires to impoliteness and rudeness in a child's reactions, it is necessary first to determine which of these factors is the responsible one. If it is the one last mentioned, the disaffection will be not restricted to one or two children, but will be found widespread among the pupils. It is immediately incumbent upon the teacher who finds this state of affairs developing to check up carefully upon her personality and professional traits. Such traits in her as impoliteness, impatience, ill-temper, sourness of disposition, recourse to sarcasm, and to empty threatenings, lack of ambition, time wasting, and the like, can hardly fail to react unfortunately upon her pupils, some of whom will not hesitate to pay her back in her own coin in so far at least as rudeness and impoliteness can accomplish repayment.

In the case of a child whose extra-school environment is crude and unpolished, and who in consequence is possessed of no standards of politeness and propriety by which to regulate or judge his conduct, the teacher's task becomes the delicate one of pointing out newer and higher pathways, and

without throwing discredit upon the lower ones which the child has been wont to tread within the home precincts. By personal conferences and interviews, wherever necessary, wherein the actual discussion of what constitutes polite and acceptable conduct occurs, the teacher may hope to succeed in sowing the seed of conformity and propriety in a characteristically crude child. Matter-of-fact explanations to the same end made at psychological moments to the entire school — provided they do not savor too strongly of preachment and moralizing but emphasize rather the social and personal values of thoughtfulness and sympathy which worth-while people strive always to emulate — are an excellent means of combating rudeness and coarseness among children. In these pointed discussions, both in private conferences and in the class, a challenge may well be made to the highest powers of self-control of which the child is capable. “I know who could take hold of you, Charles, and make you kind and polite!” exclaimed a teacher to an unusually impolite boy in her fourth grade. “Who?” asked Charles, “the Principal?” “No, not the Principal, Charles!” “Who? My father, I suppose.” “No, not your father!” “Who, then?” “Nobody but you, Charles! You are the best person in the world to have a real tussle with yourself and straighten yourself out! How about trying it? I’ll be the referee!” Good discipline, this — and good psychology! Charles was brought face to face with Charles!

“Smartness” has no basis usually in the home situation, but is an expression of the innate urge to show off, as we have seen. The same methods of handling as proposed in the preceding paragraph may frequently be efficacious in bringing “smartness” under control and substituting for it a more desirable adjustment to the social requirements of the schoolroom and of polite society generally. In case,

however, that informal talks, quiet discussions, calm explanations, and printed stories about well-bred people prove of non-effect in inducing a change of attitude, it may be necessary to actually set the public opinion of the schoolroom — which is after all about the strongest control which a teacher has over a recalcitrant child — against the crude “smartness” and impoliteness of an offending pupil. The disapproval of one’s mates is one of the most sobering forces that can be turned upon a normal child, and if he can be made to feel keenly that he is an outsider and unworthy of full rights and membership within the schoolroom group so long as his unsocial attitude persists he will begin to meditate upon the evil of his ways and cast about for a new basis of coöperation in order to merit reinstatement in the group.

8. *The selfish child*

How this type evidences itself. At the root of many, perhaps most, attitudes that go to make up what we term problem children is selfishness of some form or other. Selfishness is a characteristic that ramifies widely into innumerable behavior situations and tinges them all with its murkiness. There are some children in whom few gentler traits get any impulsion because of the dominance of the self *motif* in their personalities. For individuals of this type — both adult and juvenile — the world tends to narrow down into an extremely cramped sphere wherein the desire to win notice, praise, and preferment, and to avoid blame, discomfort, inconvenience, and privation, becomes the dominating note in one’s life. Egoism, petulance, conceit, willfulness, and the desire for special privilege are integral traits of the thoroughly selfish person.

Selfishness in children is frequently observed to express itself in one or another of the following three ways: self-centeredness, jealousy, and obstinacy or stubbornness.

The self-centered child of the extreme sort may be either a product of natural egoism or of overdevelopment of the self-ness through wrong parental or home training, or of both. It appears to be a part of the original equipment provided by nature that her child shall be an individualist and an egoist. In a home environment where little effort is put forth toward uprooting this inner urge of the self-hood, and where parents are prone to "spoil" their children, not much in the way of corrective education can take place. Young people who are the product of such an atmosphere are inevitably individualists and egoists.

Corrective work of the school. In its endeavor to counteract this unfortunate tendency, the school can and must play a major rôle. In literature, in general science, in history, in hygiene, and in every other subject where possible the rewards of altruism must be emphasized and its merits stressed. The sacrifices of great men of science, of reformers and social workers, and of the national and world heroes in whatsoever field of human enterprise or endeavor should not be passed over lightly but should be understood in their fullest significance. Kindly and beneficent deeds wherever and by whomever done should not remain unnoticed in the schoolroom. The virtues of humility and self-abnegation should receive not mawkishly sentimental praise and acclamation but rather the thoughtful and sincere approbation that they merit. Broad human sympathies should be aroused through the study of geography and history and current events, and the pupils should be brought to feel their kinship with all the world and the community of interest and of fate which they share with all peoples everywhere. Narrow and provincial interpretations in the schoolroom make selfish and egocentric personalities; broad and sympathetic interpretations, on the other hand, make for unselfish and world-centric citizens. By stressing whatever is

human a teacher may hope to shake a naturally individualistic personality free of itself and open it to the play of the wider forces of humanistic culture and outlook. A genuine interest in the welfare of mankind and the will to enlist and invest one's life in the great human cause may and should be established in the elementary school experience of each rising generation.

There frequently arise also in the schoolroom incidental situations which may be made to contribute materially to the breaking down or at least to the discouragement of selfish attitudes and ideals in the pupils. The repeated necessity of refraining from interfering with what another pupil is doing or with the comfort and achievements of the group; the doing of simple acts of courtesy and helpfulness for others; the sharing of experiences with the class; giving aid to a slower child; defending a weaker child; the remembrance of a sick and absent mate; thoughtfulness shown where selfishness might have been the easier thing — these are representative of reactions that frequently occur in the schoolroom life, and the teacher should be on the alert to note or to suggest them, especially when they involve a decidedly thoughtless or selfish child. Stories that depict without too obvious moralizing and ostentation thoughtful and unselfish deeds and the immaterial rewards that accrue to the doer can be made excellent use of by the teacher, as can also local deeds of kindness, chivalry or bravery done in the community by its citizens or public servants, always with the clear emphasis left in the child's mind that an individual who serves others always derives satisfaction from his deed and does not stop to calculate beforehand any personal advantage that may obtain for him in its doing.

Jealousy a form of selfish expression. Frequently selfishness reaches considerable development in a child in the form of pronounced jealousy for one's own rights — real or

imaginary — or envy of the gifts and advantages of another. In early infancy manifestations of jealousy come into prominence whenever the young child beholds the spectacle of another receiving the approval or enjoying the prerogatives which he wishes for himself. As he grows older, the child may be afflicted more and more with this strange malady of jealousy, particularly if there is any noticeable inequality in the distribution of gifts, favors or affection in the home. Likewise if he witnesses jealous reactions in others, or if the greater possessions or abilities of another child are held vauntingly over him, suggesting invidious comparisons, he is extremely likely to develop jealousy and envy to a decidedly unlovely degree.

In the home much can be done by the parents to offset these highly unsocial traits. Total absence of everything that savors of favoritism among the children must be rigidly adhered to. This does not mean that parents must use meticulous care that all their favors are distributed with mathematical evenness and precision; it rather means that they shall manifest the same devotion to all within the family circle and that every juvenile member shall be conscious of that fact and content and trustful that in whatever form that love expresses itself it will be fair and right. Coupled with this happy home atmosphere there needs also to be considerable actual training along the lines of contentment with one's own lot and one's own possessions, however humble they may be. Considerable emphasis needs to be placed in the early home training upon those compensating values which every individual's lot invariably has when compared with the fortunes of another, and upon encouraging the envious child to develop superiorities along other lines than those in which he possesses obvious disadvantages.

In the schoolroom it is essential also that the teacher be strictly impartial in her dealings with her pupils, having no

favorites and granting no unequal favors. She must in addition refrain from bestowing praise exclusively upon those of her children who may seem to be most deserving of it, and take pains to include all of them indiscriminately within her approbation, commending at least the efforts of those whose actual achievements may be found wanting. In this connection, remarks or acts on her part that might lead her pupils to make invidious and silent comparisons among themselves should be scrupulously avoided. Occasional quiet talks with a child who displays openly jealous behavior will be of help if the teacher strives earnestly and sympathetically to instill a realizing sense of the ugliness of jealousy and envy in a human being and a readiness and even an eagerness in the child to develop compensating traits or capacities which he has and which some other children have not.

Stories also, both from history and from contemporary events and even from fiction, which extol the simple and unaffected life, or which teach that unfortunate surroundings or modest talents make one neither ignoble nor unhappy, may be introduced occasionally into the classroom with profit. Biographical study of very humble men who builded noble lives out of the few homely virtues and talents that they did possess, disregarding what would ordinarily be considered their serious deficiencies or lacks, may be made the basis for excellent character training along these lines. Whatever opportunity presents itself for dignifying hard work, for doing honor to the common man, or for creating a feeling of sympathy for all sorts and conditions of life should be seized upon as a sure means of counteracting petty jealousies and meannesses of character and establishing in their stead broad human understandings and sympathies.

Obstinacy and stubbornness. These characteristics represent a somewhat different offshoot of selfishness. If a

child learns early that sulking and petulance will secure for him the satisfactory achievement of his wishes, he should not be blamed for having recourse to this device whenever his desires are not gratified promptly. Contrariness is likely to get an early start in a child who makes the discovery that it can be used as a powerful weapon against an over-fond but weak parent who capitulates speedily when it is turned upon him.

It is not alone the weak parent who fosters the development of obstinacy and stubbornness in his offspring. Not infrequently the contrary child is the scion of a contrary parent, and thus his unlovely trait is intensified both by heredity and by social imitation. Observing stubbornness and peevishness in one or both of his parents any normal child might be expected to absorb these traits almost unconsciously and automatically. Even parents who are not themselves possessed of contrary natures may be guilty of making their children contrary by faulty methods of handling and discipline. Prominent among such unfortunate methods should be included the following: insistence upon a line of conduct or a course of action the justice or wisdom of which have not been accepted by the child; failure to take the child into the parental confidence when compelling his obedience to a command or a suggestion which he does not understand; arbitrary regulation of the child's life and habits without permitting him a voice in them; unsympathetic attitudes toward a child's desires and ambitions; tyrannical imposition of the parental will upon the child's will; needless deprivation and repression in the everyday life and associations of the child, etc. In children of spirit and independence, frequent parental recourse to such high-handed methods and attitudes as these is certain to arouse rebelliousness and obstinacy which only a radical modification in the home atmosphere can hope to curb and turn.

Schoolroom handling of the obstinate child. In the schoolroom, the petulant and stubborn child may be greatly helped by a regimen of careful and intelligent discipline and control. The teacher can make no open compromise and give no apparent quarter to the obstinate pupil; whatever is assigned for all to do must be accomplished by all. The teacher should, however, be tactful in her handling of this type of child. It is unwise to arouse the antagonism and ill-will of the naturally obstinate pupil by going out of the way to insist needlessly upon his following a prescribed line of action. There are occasions when it is diplomatic for a teacher to overlook certain liberties which an individual pupil may take, and these occasions are likely to occur frequently in dealing with an obstinate child, especially during the early stages of the reëducation process. This of course does not mean that serious delinquencies are to be overlooked; it means rather that the teacher shall give the stubborn child all possible leeway consistent with reasonable standards during the time in which readjustment efforts are being put forth.

So far as possible, the mind of the obstinate child should be directed into new channels in which fixed attitudes have not yet been developed. By thus leading him tactfully away from the old situations the teacher is able to supply substitute activities in the doing of which the pupil can most readily build up new and healthier mental attitudes. Avoidance of situations likely to arouse the old besetting reaction should be continued for a considerable period until the firm basis of a new attitude and a new control has been established. Obstinacy is a deep-seated and cancerous trait which must be gently but firmly cut away. As a last resort, actual punishment may be necessary, though it should never be employed until disuse and substitution have been proven ineffectual. It is desirable to keep the attention of the child

away from his stubbornness rather than to accentuate it in his thoughts by inflicting punishment on account of it. In particularly chronic and persistent cases of this attitude, however, such punishments as for example the deprivation of privileges enjoyed by others, keeping the offender after school hours to do work that he has failed to do, or that he has not done in the right spirit, serious conferences and straightforward reproofs, and the like, may be resorted to.

It must always be remembered in dealing with the obstinate child that it is the child who must conform, not the teacher; hence the teacher must take care not to impose demands or requirements upon such a child that she cannot surely enforce. There must always be left for her a way out that she can use if necessary without embarrassment and without forfeiting the respect of the offender. In this connection there must be no clash of wills, no smouldering feuds, as between teacher and child; rather there should be a re-direction of the child's will, an intangible yet a sure inclining of it in the direction of the accepted and the desired way of reaction. In a clash of wills, one either breaks, or else both take on new and unlovely qualities; neither of these consequences is to be desired from the disciplining and reëducation of a stubborn child.

TOPICS FOR SPECIAL STUDY AND REPORT

1. What have been your contacts and experiences with irresponsible children? Suggest correctional methods that have been found effective in their reëducation.
2. Have you had any experience that would lead you to feel sympathetic with the idea that there may be grave danger of overburdening children prematurely with needless responsibilities, duties, social engagements, and the like?
3. Do you know any lazy child? Any "lazy" child? Wherein lies the difference between laziness and "laziness"? What are the causes of both, and what correctional methods should be undertaken?
4. Confer with some primary teacher in the matter of "talking out"

in school. Does she regard a certain amount of it as inevitable? What controls has she found effective? Question her also concerning tattling and tale-bearing among primary children.

5. Recall any outstanding cases of juvenile rudeness which you have observed or with which you may have had to deal. What was its real root? How might it have been — or how was it — handled? With what results?
6. What factors make for self-centeredness in a child? What are its evils? State what corrective treatment may be found helpful in dealing with it. If possible, illustrate your argument with some specific case known to you.
7. What possible schoolroom basis may jealousy and envy have? Enumerate several precautions that the teacher should observe in the handling of these unsocial traits.
8. Recall some instance of stubbornness or obstinacy that you may have observed in a child. Had it any pre-school basis, as far as you are aware? If so, what? Discuss the methods that were used in dealing with the situation.
9. In this chapter we have been analyzing among others the following undesirable traits: (1) irresponsibility; (2) "laziness"; (3) self-centeredness; (4) obstinacy. Make a serious attempt to size up your own personality with reference to these four qualities, perhaps ranking yourself in each opposite characteristic (i.e., responsibility, alertness, sympathy, and tractability) on a scale of 10.

CHAPTER X

MENTAL HYGIENE AND THE SCHOOL SUBJECTS

Teaching hygienically as well as psychologically. Ever since the practice was introduced of preparing trained teachers for our schools, a strong emphasis has been placed upon the study of psychology and related professional subjects. In consequence of this widespread conviction on the part of our educators that a considerable amount of attention ought to be devoted to acquainting teachers in training with approved psychological principle and pedagogic device, we have succeeded surprisingly well in preparing teachers to meet the increasingly complex conditions and demands of the schoolroom. On the schedule of every normal school, teachers' college, and professional summer school there are listed courses in all relevant phases of psychology, education, and pedagogy, and every trained teacher in the land has had already, or else is planning very shortly to pursue somewhere at least one and usually several such professional courses.

We cannot point with too much pride to this achievement, notwithstanding the fact that much of our psychology has failed to function as we had hoped it would, and that many a teacher has never been able to trace any very striking similitude between the psychology she learned in principle in the professional school and the psychology she finds incarnate in the youth whom she strives to teach. Certainly, however, in spite of these criticisms, any fair-minded person to-day would insist that the investment of nearly a century in the professional training of teachers, based chiefly upon psychological concepts, has yielded excellent returns.

But it has not been sufficient to psychologize education

and teaching, essential as this ideal has been to the evolution of our present elaborate educational philosophy and purpose. It is not enough to make exploratory surveys of the field of childhood; to establish and exemplify wise educational precepts and principles; to provide opportunity to observe skilled teaching; to learn how to diagnose scholastic weaknesses, measure abilities, and correct deficiencies; to study methods and devices and motives and incentives, and the like. Experience in all these and innumerable other related aspects of the teaching art is essential — indispensable even; yet to stop here is to create a well integrated and balanced organism and to neglect to provide the proper agents for its economical and successful running. There is, in other words, something more in teaching than the coldly exact routine performance of specified operations in specified and formalized ways. Far deeper and broader purposes should be operative in all teaching worthy the name; having psychologized teaching, in other words, we must now turn our attention to teaching hygienically.

What is hygienic teaching? Every subject in the school curriculum has distinct possibilities for mental hygiene, and ought to be taught in a way to bring out these values strikingly. Within the brief space of this and the next chapter it will be impossible obviously to go very exhaustively into this phase of our general subject. It will be possible, however, to lay down a few essential lines of procedure that may be followed with profit in the teaching of the common branches, and this we shall attempt to do.

The best approach to an analysis of the hygienic aspects of the various curricular subjects may be found in proposing, in connection with each one of them, these two questions: (1) What are the realizable hygienic values or aims of this subject? and (2) What hygienic suggestions should be made for teaching it?

In seeking for satisfactory answers to these queries, we shall discover that positive, healthful mental attitudes may be instilled unmistakably in the teaching and in the learning of every subject, and that in the process of pursuing this branch or that branch harmonious adjustments may be fostered to innumerable life situations, opportunities, requirements, and needs. Among these positive and hygienically desirable mental attitudes and convictions may be mentioned the following: confidence; self-control; consciousness of skill; carefulness and pains; mastery; sympathies, tolerances — oneness with life; appreciations; new viewpoints, ideals, enthusiasm; new masteries; new openings of brain tracts; interests and hopes; a passion for full and clear comprehension; lofty life aims and purposes; determination; initiative; the will for energetic achievement; individuality; self-expression, and the like. Until all our teaching of arithmetic, and of reading and of history and science, and all the rest, is oriented from the point of view of hygiene its fruits must be gnarled and imperfect. In the ensuing pages we shall endeavor to point out some of the more obvious hygienic values of each one of the common branches.

I. THE HYGIENIC TEACHING OF LANGUAGE SUBJECTS

1. *Reading*

Fundamental aims of reading. The two fundamental aims of reading are: (1) to sharpen a tool that is to be worked to the limit, and (2) to instill an enjoyment of the reading process. It is the second of these aims that is of chief hygienic importance. At all costs, reading should be made pleasurable for the child from the very earliest lessons. Monotonous and humdrum repetition of the stereotyped material found in many elementary readers is likely to be fatal to the development of a genuine reading passion. By

virtue of well-selected subject-matter and variety of attack, enthusiastic interest should be aroused and maintained.

Too much emphasis can hardly be placed upon the significance of instilling reading pleasurable in the lowest grades, since there is no doubt but that the explanation of much of the aversion to reading found among considerable numbers of older children, and of adults as well, is to be laid at the door of the early grades. Dislikes formed there, either through unsuitable material or unfortunate methods of handling it, may readily persist up into and through adult life. Primary and intermediate teachers have by no means yet learned how to select or adapt reading material so fascinating to their children as to allure and charm them with its necromancy. They choke up the clear running channels of their eager imaginations in these enchanted years with such unbelievable and paralyzing concoctions as "I see a cat"; "I skip and hop"; "Do you see the way to go to the sea?" "The hen found a bag of flour"; and the like. Only gradually is a new day dawning wherein primary reading material that appeals to the child's inclination and taste is being adopted. "Here is old big Mister Pig" and "The Apple Man is coming down the street" are samples of the material that is selected intelligently and that is calculated to ride lightly the swift-moving channels of the child mind. As the youthful readers progress into the intermediate grades, plentiful dramatization and extensive use of supplementary readers should be provided for, so that the widening and deepening channels may flow on merrily and with ever greater volume. The whetting curiosity to see "what happened next," or "how it all came out," or if they "lived happily ever after," needs to be constant, and the teacher will need to practice anon and often the enthralling art of the story-teller to arouse in the children keen and insatiable thirst for new adventurings into the fairyland of reading.

Oral reading. In the interest of mental hygiene also, far more attention ought to be given to oral reading. The testing movement has tended to put a premium upon silent reading at the expense of the former. In our desire to sharpen a tool for vigorous and rapid silent use in all kinds of learning, we have neglected shamefully to teach children to read orally; witness, for example, the stumbling, halting oral reading of the majority of our students who have come up through the silent reading era of the last decade and a half. No doubt much of the so-called "translation" in vogue in high-school classes in foreign languages operates to kill, in the minds of the youthful translators, any stray idea — which the neglect of oral work in the elementary schools may have left unslain — that the spoken word can and ought to be beautiful and striking. Here, for instance, is a verbatim reproduction of the first few lines of Spanish translated by a high-school senior in a college entrance examination submitted recently to the author; it is typical of the average attempts to reproduce a foreign language in the mother tongue in our American secondary schools:

I will take a — of praise, y I will seek with the sight to the director toward that I saw it in one of the chairs. I sent beneath in a door. The act had just started.

The atrocious oral language permitted in our modern-language classrooms is of course but one of many factors that contribute to the low estate into which reading aloud has fallen on every hand. It is uneconomical in an age of strict economy and efficiency; it is impractical in a world of the ultra-practical; it is unessential in a generation that craves only the essential in culture, grace, and refinement. The renaissance of oral reading is a thing greatly to be desired; only through it can one be made to thrill to the great classics of all the ages; only through its medium, supple-

mented by the thrall of the story-teller can one acquire a feeling for the mother tongue and an appreciation of its proper melody and charm; only through its exercise can one rehearse convincingly for others in the family circle, in the club, and in the social gathering the facts and events and actions and ideas recorded in books and magazines and "minutes" and communications received from others. A reasonable confidence in one's ability to read smoothly and attractively before others is a highly desirable trait and one whose possession is a distinct asset from the standpoint of mental hygiene. Let the children learn to read aloud, then. Let them enjoy hearing others read beautifully. Let the teacher read something with expression every day before her children, that they may feel, and enjoy, and aspire!

Principles to be borne in mind. Among the hygienic principles to be borne in mind in the teaching of reading in the elementary schools, those suggested below deserve special attention. In the first place, reading should be so taught as to evoke in children reasonable habits of carefulness and accuracy in pronunciation and enunciation. Oral reading, of course, peculiarly lends itself to this purpose, and one of the teacher's aims should be the encouragement of her pupils along these lines, since to develop a confidence and a consciousness that one's spoken phrases are correctly stressed and clearly articulated is very definitely to contribute to one's prepossession when he finds himself in a social group of any nature. There are too many stammerers and mumblers abroad in the world whose oral deficiencies should never have been permitted to develop, or which ought to have been corrected back in the intermediate grades.

In the second place, it should be an important supplementing function of the teacher of reading to inspire in her pupils an interest in and respect for the dictionary such as are rarely found in the products of our schools. By reason

of the absence of individual desk copies of a substantial dictionary, or because the Webster's Unabridged in a far corner of the room is dusty, dog-eared, and mutilated or deleted by time or vandals, or because dictionary work is minimized, or made either unattractive or downright repulsive by the teacher's handling of it, or by virtue of all these things in combination, the "dictionary habit" is in danger of never getting formed during the pupil years, and if it is not then only in rare instances will it ever be subsequently.

In the third place, caution needs to be exercised by the teacher to insure that ability to comprehend is keeping pace with the increased ability to read rapidly. There is a grave danger that our modern phonetic aids to the mastery of the reading art may produce surprisingly glib and efficient pronouncers of words at the expense of thorough comprehension of meanings and contents. This is eminently bad mental hygiene, encouraging as it does a vicious kind of deceitfulness and an insidious dishonesty with one's self. Better to throw phonetics overboard and go back to the older methods that at least necessitated recognition and comprehension of the meanings of words than to sacrifice understanding for empty verbalism.

A fourth caution to be observed in the teaching of reading suggests the strict avoidance of all confusing elements, aids, helps, etc., that will tend in any way to burden the learner and make his task unattractive — especially during the earlier years of practice. Some teachers are undoubtedly putting a stumblingblock in the way of interest and progress by an overemphasis upon phonetic symbols; others are producing the same effects by too much attention to diacritical marks. After considerable facility has been established in reading, and a real enjoyment of it has been instilled, some consideration may properly and advantageously

be given to phonetic symbols and to diacritical marks; but certainly the child below the junior-high-school grades is burdened unnecessarily and probably disadvantageously by any emphasis upon these matters. It is bad mental hygiene to make the process of acquiring skill in reading, of all subjects in the curriculum, a disagreeable and a mechanical one.

In the fifth place, while without question much more time should be devoted to oral reading in every grade than is now the case, it is of equal importance that considerable improvement in speed of silent reading should be aimed at in the intermediate and higher grades. Recent experimental work indicates that with adequate training both juveniles and adults can increase their abilities along these lines as much as 100 per cent, without loss of comprehension. Teachers can strive to accomplish few more laudable things for their pupils than preparing them to perform at the maximum of their individual abilities in silent reading. This aim should, of course, become increasingly important in each succeeding grade above the fourth, including the junior and senior high school and the college grades. There is scarce a teacher in a higher educational institution in the land who does not deplore the inability of college students to read rapidly and with comprehension. The interests of mental hygiene will be served well if teachers all along the line will emphasize for their students the desirability of improving substantially their silent reading habits, inasmuch as a consciousness of greater proficiency in absorbing material from the printed page makes for a new confidence and a new conception of achievement.

One other precaution is suggested by mental hygiene for the teacher of reading to observe. In this new day of achievement testing in all branches of the curriculum, there is a danger that the objective measuring may be made a fetish, an end in itself, rather than a means to new and higher

classroom achievement. In connection with silent reading particular care must be exercised that the measuring stick shall not discourage individual potentialities and tend to establish a common dead level of achievement for all. The teacher must, in other words, beware lest in diagnosing the weaknesses of poor readers and in providing for them the necessary drill and remedial treatment to bring them up to the norm — which must always be a dead level — she may neglect the good readers and permit them to languish along at a level only slightly above the norm, when by gift and by potentiality they should be straining to reach planes distinctly superior. We need much more experimental data before we shall know how to interpret norms that were originally established for unselected children and apply them to those who are of exceptional or superior quality. In the meantime, teachers of reading should continue to stimulate those children who are at or above the norms to strive for constantly higher achievement; in this way initiative and ambition will be led on, interest and pleasurable-ness will be encouraged, and that indifferent, low-level performance so prone to characterize our brighter minds when needed stimulation is absent, will be happily eradicated.

2. *Spelling*

Disadvantages of a "poor speller." There is likely to be something smug and self-satisfying in the frequently heard acknowledgment: "Oh, well, I'm a poor speller, anyway!" While there is unquestionably a wide range of individual differences in spelling aptness, it is certain that there can be no plausible excuse for being a conspicuously "bad" speller, and it is decidedly unhygienic for the personality to lay claim to such preëminence; far more salutary and positive is it to know one's self to be at least a passable speller. In addition to its psychological value, a fair degree of spelling ability is

also of incalculable practical advantage to any individual who has letters to write, or notes to make, or records to keep; many occupations indeed are closed to those who are lacking in this art.

Importance of drilling on words in daily use. It is of prime importance to the interest and effort put forth by the learner that there shall be an intimate and direct relationship between the words drilled upon and the daily writing and language needs. The time is not very long past when devisers of "spellers" aimed to include between the two covers of their books as many of the half million or more words in the English language, quite regardless of their practical value, as they could select. More recently, while not minimizing the importance of correct spelling of all words, teachers have been insisting upon the selection for intensive study of those words within any grade that bear reasonable relationship to the pupil needs at that age level. This practice aids immensely in the motivation of spelling, and is much less overwhelming to the learner who is confronted with fewer and more commonly needed words to be mastered. Who of us who came up through the schools a quarter of a century and more ago does not recall the interminable word lists which he perspired over aimlessly and with no little inner rebellion in the days when outward rebellion was rewarded by the imposition of ten additional and harder words! True, we may have learned to spell huge numbers of words, but it was at the expense of mental serenity, eagerness to learn more, and any worthy appreciation of the usability of what we were compelled to learn!

Another important principle to be borne in mind in the hygienic teaching of spelling has to do with the building up in the mind of the learner of a respect for and a faith in the reasonable consistency of our conventional orthography. It is extremely unwise to encourage in students, certainly in

any grades below the upper high school, the notion that our language is most ridiculous, unphonetic, and inconsistent in its spelling. True, in our orthography the same letter often has a variety of sounds, and the same sound may be represented by a variety of letters; but the same criticisms obtain of other languages, notably of French, the tongue of culture, refinement, and diplomacy; and until we have a universal language built upon strict phonetics — which we shall probably never have — it will be idle to burden the minds of children with “reformed” spellings which few have accepted, and it will be extremely unfortunate to arouse in them a hostile attitude toward conventional spelling. After they have learned to spell the language accurately it will be time enough to lead them to think about possible new principles of orthography. Let there be no “reform” mentioned until something has been formed. Of more positive and hygienic value will it be to emphasize throughout the elementary and junior-high-school grades the beauty and consistency of the language, and to drill adequately in its more arbitrary forms. In this way a growing confidence in one’s spelling ability will keep pace with one’s general rate of progress.

One other important principle in the hygienic teaching of spelling should be borne in mind by every teacher. In spelling, more perhaps than in any other subject in the curriculum, continuous drill must be provided. Primarily in actual word study, and secondarily in connection with composition and written lessons, practice is afforded in the art of the correct spelling of words. On all occasions it must be the teacher’s purpose to supply plentiful drill for all pupils — both “good” spellers and “bad.” This drill often misses fire because it is not properly motivated, and hence because of its apparent aimlessness in the mind of the pupil. There is nothing more deadening and enervating than the monotonous grind of a spelling drill that fails to eventuate in

any obvious improvement. By virtue of very frequent use of objective spelling scales, of graphs to show the fruits of the daily and weekly drills, and of other interest-rousing and attention-fixing devices, every five-minute or ten-minute period spent in word study should challenge the focalized and even the enthusiastic participation of every pupil. In this connection, while undoubtedly serving occasionally as an excellent device, the old-fashioned spelling match, which has recently come into national vogue through contests conducted by the newspapers, is not to be recommended for anything more than occasional use since, like school baseball the chief benefits accruing are for those who are naturally "good" in the art already, while those who are "poor" are likely through neglect to become poorer still. It is obvious also that because an individual "spells" down another individual he is not for that reason any better speller than others in the line: he only chances to know a particular word that his opponent did not chance to know. The very next word given might cause him to fail and his opponent to win. Mental hygiene is best served when practice is participated in by every one, and when some tangible evidence of the results is available for the encouragement and the ambition of every participant.

3. *Handwriting*

Individuality in writing. One of the severest criticisms mental hygiene has to make of the conventional teaching of handwriting is the unfortunate tendency very many teachers have of frowning upon individualistic trends of the learners, and of insisting upon uniformity of writing for every one. Some of the world's finest handwriting has been done by people who were never drilled in those elements of form which are considered so essential by the rank and file of modern teachers. The manuscripts that have come down

to us from the Middle Ages are surprising examples of individuality, and at the same time of distinct beauty in handwriting. Old letters written by grandparents and great grandparents and preserved in nearly every old family bear striking testimony to the fact that lack of any methodical drill by pedagogues caused neither legibility, beauty, nor individuality to be sacrificed. Old deeds, wills, account books, diaries, and the like witness to the same effect.

Aims to be attained. The two aims of handwriting are: (1) a fair hand, and (2) a moderately rapid speed — somewhere in the neighborhood of a letter a second by the time the elementary grades are finished. While obviously certain basal principles of posture, ease, and general style need to be insisted upon by the teacher, it is highly undesirable to discourage natural leanings and individualistic tendencies. If in his early trial-and-error efforts a learner grasps his pencil awkwardly, or in a way certain to prove fatiguing and uneconomical, or if he gets his paper at an impossible angle, or if he tends to lie upon his desk, he must be corrected forthwith and drilled effectively to observe the approved form. Outside of these precautions, however, the development of a pupil's handwriting may and should be left largely to the individual. How absurd to insist that a certain standard degree of slant or verticality must be observed by every child! How absurd to countenance only one specific style! Or one specific movement! If the handwriting being developed is clearly and easily legible, and if the promise of a reasonable degree of attainable speed is assured without undue fatigue, then the learner should be left undisturbed and unharassed by the teacher. Only when one or the other of these two fundamentals is in danger of being sacrificed may the teacher properly obtrude herself into the actual learning process. In all things else freedom to build one's own peculiar system of penmanship should be vouchsafed.

Important hygienic conditions. In addition to cognizance of the two general principles mentioned above, there are certain other hygienic conditions to be observed in the teaching of handwriting. These we may enumerate briefly under the following eight categories:

(1) The practice period should come always at a time when the body is rested and unexcited. A writing lesson immediately following an outdoor recess or at the beginning of either session, when the muscles are atingle with stimulation and when the blood is coursing rapidly, is highly unprofitable.

(2) The length of the practice period should be brief — not more than ten minutes in the intermediate grades and rarely more than twice as long in the higher grades. Writing, notably during the early stages of trial-and-error effort, is attended with a high degree of nervous strain — of eyes, of muscular fixity, and of concentration — and cannot be safely prolonged beyond a few moments at a time.

(3) Formal writing exercises should not be permitted too early. It is open to question whether any set drill in writing below the fourth grade is not carried on at the expense of undue nervous strain. Certainly in the first three grades whatever practice is given should be performed with large pencils or crayons, and preferably at the blackboard or on large sheets of paper.

(4) Formal practice periods should be discontinued from the time when the two general aims — a fair hand and a letter-a-second speed have been achieved. Occasional drills may be introduced subsequently but there is no virtue in longer divorcing writing from its proper and intimate relationship with literature and composition and the other curricular subjects.

(5) Allowance must be made for the slower children, especially during any rhythmic exercises that may be used in the early stages. It may be even necessary to adopt a

slower rhythm for these types, since permanent injury to their style of handwriting and unfortunate attitudes of mind may be caused by a too vigorous and bold tempo. In spite of our efforts at standardization of achievement — and notably is this the case in connection with handwriting — there will always be some who cannot turn out legibly an average of a letter a second by the time the grades are finished, just as there will also be some who can produce a beautiful hand at a rate of two or more letters a second.

(6) Continuous effort should be made by the teacher to develop a transfer of the skill in form and technique achieved in the practice periods to all other written work done in connection with the schoolroom experience. Too frequently for good mental hygiene do we find teachers who are very exacting in the writing period, but who are quite indifferent as to the quality of penmanship manifested by these same learners in the notebooks they keep, the themes they write, and such other products as they may turn in to her from time to time.

(7) Far more use ought to be made of colored inks as a means of stimulating interest in writing. Only those teachers who have tried it out know how much added zest in the day's writing practice an occasional bottle of green ink, or of red, or of purple, will supply.

(8) Finally, his penmanship is about the only objectively artistic product a child can turn out, and it is therefore highly important that the teacher's attitude shall be uniformly such as to encourage and inspire him to finer achievement and a higher mastery, never to discourage and dishearten him. To this end, whatever of positive suggestion and stimulating criticism she can offer and such ambitious self-rivalry as she can engender through the use of writing scales, etc., she should by all means charge herself to accomplish.

4. *Composition*

Fundamental aims. Like handwriting, composition has two fundamental aims: (1) to develop accuracy of grammatical expression, and (2) to develop facility and ease of expression. The best kind of grammar drill is likely to be gotten incidentally in connection with composition and theme writing. Both accuracy and facility are promoted not so much by isolated drills upon idiomatic terms, constructions, and rules of syntax and of grammar, as they are through a great deal of actual writing and speaking. How frequently have teachers experienced the depths of discouragement and even despair to hear their pupils, after months of intensive drill upon "he doesn't," "it's he," "to you and me," write or say glibly "he don't," "it's him," "to you and I," etc.!

It is a truism of modern pedagogy that one learns to do what he practices doing. If, for example, a pupil practices saying and writing in grammar drills, "it is I," he learns to say and write "it is I" in grammar drills; he is not necessarily learning to write and say "it is I" in themes or compositions, or in his ordinary conversation. The art of correct expression is developed far more economically in voluminous oral and written *expression* than it is in voluminous drill upon isolated forms and paradigms, just as one learns to handle a foreign language by reading and speaking it rather than by dictionary or vocabulary study and translation. "Dear teacher," wrote a boy at the end of a hundred written repetitions after school of "I have gone," "I have finished my writing and I have went home."

Let us have then in our composition work much writing and much speaking. Oral composition is not made anything like sufficient use of in most intermediate and upper grades; written composition is similarly neglected, largely because of the burden it imposes upon the teacher; and in lieu of both,

endless and wholly inadequate drills are gone through with. There are a hundred and forty-four combinations that a pupil must learn in the twelve multiplication tables; there are hardly more grammatical rules that must be mastered! Yet if the teacher of arithmetic spent as many years drilling pupils upon the bare number combinations apart from actual problems involving their use as teachers of language do upon drilling pupils on bare agreement and case and number and form apart from actual composition, the products of our schools would be as helpless in elementary number as they are in elementary grammar. Too much emphasis can hardly be placed upon the importance of learning correct grammar habits by much and constant oral and written composition both of which, in addition to fixing proper mechanical language habits, are powerful means of inculcating self-confidence and assurance, and a consciousness of the possession of some skill and effectiveness in the use of the spoken and the written word. To develop in a learner a feeling of competence to write a descriptive paragraph, or to get on his feet and state or defend a position — and to do either creditably — is to do much toward guaranteeing the subsequent smooth adjustment of any individual to adult social contacts.

Four significant principles. Four significant hygienic principles to be observed in the teaching of composition should be distinguished.

(1) Be sure the pupil has at least some modicum of actual interest in the theme assigned for either oral or written composition. Children are far more sinned against than sinning when they fail to approach happily a composition project that was concocted in the teacher's brain and bears no remote relationship to their own preferences or inclinations. There is no virtue and there may be much subjective harm in the mere pinning together of sentences that are born of

disinterest or of actual aversion to a topic assigned for development.

(2) Frequent short themes are much more to be desired for both oral and written treatment than is an occasional long one, since interest and variety and individuality can be better provided for, and more actual training in the repeated use of correct forms fostered. Five or ten minutes a day devoted to the relating of anecdotes, telling of stories, and reporting of experiences, whether in writing or in oral speech, will do more to build in permanent language habits than many times that amount of time devoted to writing "term papers," themes, and the like.

(3) The function of the hygienic teacher of composition is not primarily to make elaborate blue-penciled hieroglyphs and criticisms upon virgin literary efforts of young compositionists. Yet many a teacher places far more emphasis upon her pencil than she does upon her pupil, with the end result that the real spirit of composition is killed. Criticism, of course, is essential, but it should be meager, always constructive, and rarely focalized upon a single individual or his product. Mass criticism of selected errors and weaknesses, and impromptu drill upon the correct or desired forms, should replace largely the individual criticism. By exemplifying always in her own writing and speech what she would have her pupils imitate, by very frequently composing *with* her children, by reading to them anecdote and verse, and by telling many a story in well-selected language, any teacher may stimulate the deep and abiding interest of most of her pupils in the gentle art of good writing and good speaking.

(4) In nearly every schoolroom there will be found a small number of pupils who possess abilities distinctly above the average in their command of the language. A cultured background and home environment, a taste for the study of

language, and an unusual capacity to express it, will combine frequently to produce a promising young linguist. For such apt pupils a teacher should be constantly on the lookout, and once she finds one she ought to do everything in her power to encourage him, and at the same time take care not to spoil him by unequal praise or by vaunting his abilities too ostentatiously among his fellows.

5. *Literature*

Fundamental aims. There are, from the standpoint of mental hygiene, at least four fundamental aims in the teaching of literature. The first and possibly the most important of these is the establishment in the learner of an appreciative sense of the good, the moral, and the just, and of the rôle these ideals play or ought to play in the lives of men. Conversely, good literature fosters attitudes of aversion or of abhorrence for the evil, the base, the unjust. What reader does not sympathize — often to the point of weeping — with the trials and tribulations of the good character, and heave many an incipient sigh of relief when the machinations of the evil character are revealed to be after all innocuous? Witness in this connection the stamping of feet and the hand-clapping that emanate from the gallery of the cheapest movie house when the rescuer spurs his steed across the silver screen to the succor and release of her who is held in durance vile by some evil and designing villain! There can be no doubt about it: normal human beings feel a sympathetic kinship with the good people whom they meet within the pages of books, on the screen, and by the same token are prone to develop a genuine hostility toward the bad people.

Literature and the finer sensibilities. Life's ideals are absorbed quite largely from reading, for literature is the chief educator of our finer sensibilities. Even the man who

never reads anything save his customary newspaper takes on shortly a borrowed hue from its editorials and its political and social opinions and leanings, and his ideals and hopes tend to be fashioned and patterned from those upheld and preached by his paper. Court records are shot through and through with confessions made by juveniles of the determining rôles played by cheap or by actually bad books and magazines in starting them on careers of crime and vandalism. Public libraries select books for children's departments always with extreme care; thoughtful parents consult special children's lists for safe suggestions concerning suitable reading material for their boys and girls. Every one knows that bad reading influences conduct. The perennial warfare waged against salacious magazines and off-color books that would either warp the morals or dwarf the minds of youth testifies eloquently to this fact. If then bad literature influences bad conduct, how much more must good literature influence good conduct? Good literature is positive, extols virtue, rears the noble and debases the ignoble, leaving no rankling uncertainty in the mind of the reader as to whether good is after all right and honorable and satisfying, and whether bad is wrong, dishonorable, unsatisfying. Bad literature, on the other hand, while often rewarding virtue, paints vice in alluring colors and descends so far into the animal nature of human beings for its settings and its problems that it desecrates and defiles life and looses passions and emotions that would better slumber on unawakened in the minds of youth.

Choice of reading material. The second aim in the teaching of literature is the building of a background for sane discrimination and judgment in the choice of reading material. The world is full of both kinds of matter — literature and "smuterature" — and, barring the genesis of some ability to judge and choose established in the later school years,

young people would more easily gravitate to the latter levels than soar to the former and higher ones. It is as impossible for one who has learned to love the classic — ancient or modern — in the printed page to forsake it for the ephemeral and the putrid and the sophisticated as it is for the free dweller on the mountain tops to find happiness and contentment in a hut in the somber vale.

Source of enjoyment for leisure. A third hygienic aim in the teaching of literature should be the creation of an unfailing source of pleasure and enjoyment for leisure hours. Where better may one hope to turn in the ever lengthening idle hours of the modern industrial world for recreation, inspiration, and refreshing than to good books? Tragic, indeed, is the fate of many a man and woman who studied literature in the schools only to learn to despise it and to shun it; reprehensible indeed those inert teachers who have been guilty in past decades of making literature a byword of distaste and reviling for their students! For the rising generation as for none before it conscious and determined emphasis must be placed by every teacher of literature upon making it an attractive source of enjoyment and charm for the ever extending leisure hours. In the Elizabethan Age men had time to read, and they loved to read; in the new industrial age now upon us there is the time but hardly the inclination. When shall we have a rebirth of this fine old enthusiasm for good books?

Knowledge consciousness. The fourth aim in the study of literature should be the development of that prepossession and consciousness of knowledge that come abundantly through acquaintance with the best in literature of other lands and of other times, in literature contemporaneous and comparative. A wallflower in a social group is necessarily ill at ease through consciousness of his lack of background adequate to enable him to participate intelligently in the

general conversation. Now the topics most likely to be discussed in intellectual groups are literature, the arts, and the news. So far as the first of these is concerned, versatility is conditioned upon familiarity with what has been and what is being written, and the man who is conversant with the best of the past and of the present is not only able to impress others favorably, but is himself impressed with that consciousness of knowledge which is power indeed. There are few things more to be desired for the mental healthfulness of an individual than just such awareness of mastery and understanding as this.

Basic principle: wise selection of subject-matter. The successful working-out of these four fundamental aims of literature rests upon a single principle of teaching; namely, the wise selection and the appealing teaching of the subject-matter. Fancy a ninth-grade class compelled to spend an entire term of nine weeks upon *Snowbound*! And another ninth-grade class spending ten weeks upon *The Ancient Mariner* and *The Vision of Sir Launfal*! And never a solitary bit of supplementary reading either required, recommended, or made available in either case! Small wonder that instead of an awakening interest in literature there was developed in the majority of pupils concerned a dislike for Whittier and Coleridge and Lowell that extended to the teacher — and in many ways to the school itself.

There are few more serious pedagogic offenses than that of destroying the natural interest which every child has in reading, or would have had if the right start had been made. The two things that combine to kill this interest are unfortunate selections of material and unwholesome methods of serving it up. Despite the revision and extension in recent years of elementary and high-school book lists, there are still legions of schools attempting to teach literature wholly unsuited to children's interests and needs. Once a classic

has been given a place on the list it is next to impossible ever to get it off, and this circumstance accounts for the survival of multitudes of books that should have been removed from the required or supplementary curriculum years ago. We are so custom-bound in this respect that we cheerfully forfeit interest and spontaneity for the preservation of a traditional lay-out that teachers have known for a generation was highly improvable. Witness, for example, pubescent children languishing microscopically through Addison, Johnson, Burke, Arnold, Ruskin, and the like, when there are Scott and Dickens and Irving and Cooper and Twain and innumerable others whose work never fails to appeal.

Unpedagogic dissection of masterpieces of literature. Yet another offense but slightly less grievous than unpsychological selection of literary materials is unpedagogic method of handling them. Teachers are master murderers when it comes to the dissection and the drawing and quartering of masterpieces of literature. Why can they not be content with letting their young charges catch the sweep of a great story and be carried along with it as we grown-ups normally and properly are when we seek pleasure in reading a good romance? Why must they exhume the long dead author and clothe him in colorless drab garments and make him strut stiffly and unnaturally beside the pages as they are turned? What student a twelve-month afterward could tell whether Johnson was born in London or Bombay, or whether Scott eventually paid off all his creditors or not, or whether Gray's *Elegy* appeared first in the *Sketch Book*, the *Spectator*, or in a private collection? And why, too, must minds that are eager to go with the winds be held in leash and compelled to sniff protestingly at plots and character studies and outlines and hidden meanings and figures of speech and all the rest? Away with such spirit-killing devices! If we are to train young people to love to read, let

us set them to reading — eagerly, insatiably, extensively! Beware of dissection and desiccation of literature. Let us read, intelligently and with sympathy and understanding — yes; but above all, let us read for sheer joy and inspiration!

II. THE HYGIENIC TEACHING OF MATHEMATICS

Development of mental attitudes. From the hygienic point of view, the study of mathematics ought to eventuate in the development of two significant mental attitudes in the learner. In the first place, mathematics ought to instill in one a profound respect for objective accuracy — directly in connection with the actual problems germane to the subject, and indirectly and by implication in connection with all life situations. In few if any other subjects of the curriculum does there appear so unmistakably the relationship between the cause and effect, between process undertaken and product achieved, between what is put in and what is taken out, as is the case with mathematics. In no other subject can perfect exactitude be reached; in no other can complete integration and harmony be demonstrated. The invariableness, the logical harmoniousness, of mathematics render pursuit of it supremely important as a means of creating in the learner an intelligent respect for uniformity and definiteness in procedure, and an admiration for symmetry, logic, and even beauty. It is good for the finite mind thus to envisage something of the infinite, and to realize humbly that in a world too often set in turmoil and confusion and disorder there is easily demonstrable the existence of law and of symmetry and fidelity.

Critical analysis. A second hygienic aim of the study of mathematics should be the development of an attitude of critical analysis and understanding of the present situation. As Freeman suggests,¹ “one of the most valuable attitudes

¹ *The Psychology of the Common Branches*, p. 199.

of mind is the acquiring of the habit of understanding clearly everything one does." Surely in no subject equally with mathematics is it clear and obvious that the significance of every move made must be fully realized before it is hazarded. Barring experimental evidence concerning the amount of transfer of these attitudes of caution and critical analysis from mathematical situations to life situations, we may confidently assert that it cannot be negligible and ought to be considerable if wise principles of teaching are employed that will foster the transfer.

Yet it is a strange fact that the teaching of this very exact subject of mathematics is often surprisingly inexact indeed, and leaves decidedly hazy ideas and concepts in the mind of the learner. This criticism applies not alone to the teaching of much of algebra and geometry in the high school, from which the average run of students are likely to derive very little either of present comprehension or of permanent transfer value, but strikingly to the teaching of elementary processes of arithmetic. How many learners know or sense why they "carry" in addition; why they "borrow" in subtraction; why they "move to the left" in multiplication; why they "invert the divisor and proceed as in multiplication" in fractional division; why the "product of the means must always equal the product of the extremes" in a proportion, etc.? Thanks to poor teaching, we are likely to find pupils leaving our schools with the impression that mathematics, our most exact science, is nothing less than an arbitrary, inexorable, meaningless, and unexplainable art! Rightly taught, the mathematical should be the most popular subjects in the curriculum, instead of being the most dreaded and disliked. Such negative attitudes developed in connection with a logical, orderly, and methodical subject of study may easily transfer negatively, and vicariously indispose one to logic, order, and beauty in actual life situations.

Hygienic principles of teaching mathematics. Several hygienic principles of teaching mathematics may be here suggested.

(1) Use predominantly the concrete perceptual experience of the class in place of the formal memory and book work so common still in many of our schools. How many of us learned to repeat glibly from the arithmetic the tables of dry and liquid and linear measure, for example, without ever even seeing objectively a gill, or a gallon, or a yard, or rod! Real mensuration of real life objects and materials would not only have made our concepts clearer but would have enabled us to see in the problems we were set real meaning and tangibility. There would have been some zest in measuring sand and water and playgrounds and flower beds, and in solving problems constructed bodily out of the environment.

(2) Draw problems from actual life and from the realm of general class interest. Too much of the material presented in the conventional arithmetic text violates the pupil's sense of reality and practicality. Where in life, for example, shall the learner turn to find men using troy and apothecary weight? Or solving problems involving complex and compound fractions? Or searching out greatest common divisors and least common multiples? Or reckoning bank discount as the text comprehends banking? Or partial payments and problems of partnership as the text comprehends these relationships in the business world?

(3) Make mathematical study rather a means of creating power and inclination to think than of providing wide opportunity for the blind exercise of memory. Thoughtful use of the mind is naturally enjoyable to us unless and until by dint of much fruitless puzzling and profitless contemplation we develop aversions and disinclinations. Mathematical study is justifiable only so long as it can incite the mind to thoughtful activity; from the moment when it degenerates into a

memory exercise — as for example it is often likely to do in geometry as it is taught — it loses its edge and becomes merely a task of passive application rather than of active and sustaining interest. Mental hygiene is not served in this way; for the development of positive and healthful attitudes of mind it is essential that the learner shall pant after the water brook, shall seek rather than be given, shall attack and overcome rather than receive passive sustenance.

TOPICS FOR SPECIAL STUDY AND REPORT

1. Distinguish between the psychologizing of teaching and the hygienizing of teaching. What points have the two ideas in common?
2. Collect and examine as many school readers as you have access to in the school library or elsewhere. Evaluate each in terms of the standards proposed in this chapter. What seem to be the more satisfactory primary readers in the assortment? Intermediate? Upper? State your reasons for the choices made.
3. Recall your own school experience in connection with reading. How efficient do you feel it made you in silent reading? In oral reading? What modifications would you be inclined to suggest in the general aims and methods exemplified by your reading teachers? Does it seem to you that your experience was in any way exceptional, or that it was typical of most schoolrooms?
4. Are you a "good," "passable," "poor," or "miserable" speller? To what do you attribute your spelling strength or weakness? Does your spelling consciousness probably correlate reasonably well with your spelling ability?
5. Recall as fully as possible your experience in learning to write. What good or bad methods were employed by your teachers? Do you feel that your individuality was discouraged or given reasonable play? Did any of your teachers undertake to eradicate what some earlier teacher had done? Do you class yourself to-day as a good penman? Why, or why not?
6. What are the relative merits of oral and written composition? Did you enjoy or dislike either or both in the elementary and high school? Were some teachers more successful than others in stimulating interest in composition? How were themes found? What types of theme appealed most strongly?
7. What is your present attitude toward good literature — classical or contemporary? Do you enjoy Dickens, Thackeray, Emerson, Carlyle, Tennyson, Byron? Do you enjoy the best of contemporary

authors? Or do you rather dislike reading as a pastime? Or does your taste incline to the tawdry and the blasé and the salacious? Be honest with yourself in answering these questions. How large a part did your junior and senior high-school study of literature play in crystallizing your permanent taste for and attitude toward reading?

8. Did you like, tolerate, or dislike mathematics in school and high school? What is your attitude toward these subjects to-day? Go over in memory your experience with arithmetic, algebra, and geometry, and examine it in terms of the hygienic standards proposed in this chapter. Does mathematics impress you with its symmetry and uniformity? What habits or attitudes, if any, have been transferred into non-mathematical relationships? With what results?

CHAPTER XI

MENTAL HYGIENE AND THE SCHOOL SUBJECTS

(continued)

III. THE EXPRESSIVE ARTS

1. *Drawing*

ONE of the many things for which the late President Eliot will be long remembered by educationists is the emphasis he placed upon the importance of training the hand to do, and the impetus which he gave to this departure in modern education. Repeatedly upon the lecture platform and elsewhere his voice was raised against the folly of head training to the exclusion of hand training, and in no uncertain language he condemned any system of education that fails to turn out boys and girls who not only manifest some skill but who also find enjoyment in the use of their hands.

Value of training in drawing. Surely in no school subject are the possibilities of training along this line greater than in connection with the subject of drawing. Here is a field for self-expression of a manual nature that is at once inviting and varied. Where is there a child of five who does not love to pour out his inmost soul upon a smudgy sheet, with no better medium of expression than a bit of nondescript colored crayon or the end of a pencil! Before man could hand down the written symbol or even the spoken word he knew how to imprint the pictorial record of his deeds upon cavern walls and upon stony pillars, and there is no question but that he gloried in his work. Following behind him afar off, the child of man finds pleasure and interest in inditing upon more plastic substance the records of his own observations and fancies.

It is a sad commentary upon our educational system that few young people emerge from its influence either able to draw anything or possessed with any inclination for self-expression through drawing. Rare indeed is the individual who is able to make even the simplest sketches or plans that another can understand and follow. Yet how valuable on occasion is modest ability of this sort to any one. Everybody needs at some time or other to construct a model, or to draw a plan, or to make a pattern, or to illustrate a description, or to draw a figure, or to letter a sign, or to print a notice, or to diagram a process, or the like. Even in the schoolroom there are innumerable occasions in connection with the study of arithmetic and geography and elementary science when some facility at drawing and modelling is of great assistance to comprehension or to demonstration and explanation.

Hygienic aims in teaching drawing. There are at least three hygienic aims in drawing that all teaching of the subject should provide for.

The first of these is the development in the learner of habits of accurate observation. To draw a flower, or a house, or a vase, or a table, one needs to observe the object with care. Quite as much as arithmetic and nature study, drawing ought to aim to supply the learner with a rich perceptual acquaintance with things. To reproduce a bird on paper one must note minutely its coloring and markings, its size and proportions. To draw an oak leaf or a maple leaf or a fir tree, the same painstaking observation must take place. Fanciful and idealistic conceptions must be based similarly upon elements previously studied and now recombined into new patterns and forms. The development of habits of active observation necessarily germane to drawing and art work is of inestimable hygienic value, since it renders one careful in his testimony, confident in his knowl-

edge, and conservative in his expressed opinions and convictions.

Love of beauty and symmetry. The second hygienic aim of drawing is the building of a love of beauty and symmetry, and a standard for the appreciation of beauty. Where is there understanding and appreciation of beauty to compare with that of the naturalist exclaiming over the symmetry of a lepidoptera's wing that he is striving to absorb through his lens and put down again on the sheet before him? Or with the affection of a guild worker for the delicate tracery he has wrought? Or with the Creator Who, beholding in the even-tide of the sixth day everything that He had made, saw that it was very good, and rested content from His labors? Love for the beautiful does not spring full-grown from the brain; rather it must be born of study and observation and reconstruction of whatever has beauty, and be nurtured by intimate contacts with the beautiful. The study of drawing is incomplete and imperfect unless it makes the learner a lover of and a seeker after beauty, and unless it provides him with an insuperable standard by which to judge beauty in whatever manifestation — natural or artificial — it occurs. This thirst and this standard cannot be caught alone from the exuberance of an artist or the gushings of a sentimentalist — and some teachers of art are little more than this; they can be acquired only through more or less rambling adventurings into the objective world of things that are beautiful and charming.

Encouragement of individuality. The third, and one of the most important, of the hygienic aims of drawing should be the encouragement of individuality. It is a mistake to endeavor, as not a few teachers are sometimes guilty of doing, to stamp every embryonic artist in the same mold. There can be small justification for introducing a model or theme that every student is expected to reproduce. In

many drawing classes the learners never do more than execute certain stereotyped designs that happen to appeal to the teacher. Free and spontaneous conceptions are rarely encouraged and are frequently positively discouraged or forbidden. The teacher surrounds her pupils with an endless and unbroken chain of formal exercises which never make any very strong appeal to them and which are almost certain to stifle whatever incipient taste they may have for original or creative work.

If the ultimate aim of all study of expressive art is to stimulate in the learner some modest interest in drawing, sketching, coloring, and the like, it certainly ought to be recognized that individual preferences and learnings should be promoted zealously. One child may enjoy making design; another may enjoy sketching a flower, or a butterfly, or a tree; another may find pleasure in making a fanciful sky or hillside or landscape picture. Who of us has not inwardly rebelled against the everlasting "geometric design" that was required of us as invariably as the drawing period came around, with nothing save occasional permission to sketch a leaf or a flower to break the monotony? Is it any wonder that art plays so little vital importance in our lives after teaching of this lean and barren order? If a pleasurable interest in drawing and art work are to live on after the school years, the teaching of these subjects must be metamorphosed, taking its cue from the spontaneous themes of children's drawings. Left to himself a child rarely if ever expresses his inmost self in geometric design; what he thirsts to produce is something real and objective. Few teachers of drawing, however, follow this natural lead of their young apprentices and encourage them along lines of individual appeal. So long as a child is outside the influence of a teacher, he depicts on paper the experiences and events and objects that abound in his natural environment and that

make an appeal to his expressive impulse; but so soon as he comes under the domination of a teacher he must renounce these things of worth and moment to him and busy himself with artificial and monotonous themes which neither appeal to him nor make him more skillful in his own preferred type of expression. The outcome is inevitable: less and less desire to draw, and less and less individuality in graphic expression. What is sadly needed in the intermediate and higher grades is a continuance of the freedom of expression permitted in the best kindergarten and primary grades where the learners are actually encouraged to reconstruct on paper the experiences they encounter and the things they see and the stories they hear and the fanciful imaginings they have. When will the upper-grade and the high-school teacher come to sit at the feet of the kindergarten-primary teacher, and learn of her? True, not every pupil can be expected to turn out to be an artist; neither on the other hand ought the mass of children to leave school disliking art and unable to draw anything recognizable. Far better for teachers to direct their skill toward making their children enjoy artistic expression and able to execute modestly the themes in which they have a natural interest than to use it in such a way as to discourage and antagonize them. There is everything to be gained and nothing to lose by following the former procedure in the teaching of art.

2. *Music*

"Among a practical, industrial, and commercial people like ourselves," says Claxton,¹ "good music is necessary not only for enjoyment and recreation, but also for inspiration and for salvation from death in the din and dust of trade." Whether salvation may be had in music or in anything else from the hydra-headed monster Trade may be open to seri-

¹ United States Bureau of Education, Bulletin 33, 1914, p. 5.

ous question. Certainly the slaves do not yet haunt our best musicales in any great numbers; the great American tradesman is quite content to leave the musical hall and the concert and the recital to his swifter competitor — now one of the four hundred — to the more humble professional man, and to the music-hungry foreigner — humbler still. The nearest approach the tradesman makes to musical appreciation is when he joins with his fellow tradesmen around the luncheon table and sings lustily of “Little ’Liza Ann,” or “Annie Laurie,” or “Rotary Ann,” or Ann of some other family tree!

The love of music among our foreign-born citizens. Nothing perhaps is more striking to the social worker in the foreign quarter than the universal love for music found among our newer citizens. Whatever their nationality or extraction, they appear to be passionate devotees of music, able both to appreciate it and to produce it pleasingly. In the trans-oceanic countries from which they come nearly every one is a music lover. What was the amazement of the author some years since to behold in the Tonhalle at Munich in South Germany the spectacle of a house, packed almost without exception by native Bavarians, listening to the Fifth Symphony of Beethoven played by an orchestra of one hundred pieces, and every last listener possessing a copy of the music and following it as easily and with as much enjoyment as one might follow the unfolding of some gripping drama! What is the explanation? Why do our American artists train on the Continent? And why do our great symphonic orchestras include so many foreign musicians? And why are most of our leading artists men or women of foreign birth? The answers to these questions are not far to seek. Music has always been an integral part of the lives of our European neighbors. They have cultivated music as assiduously as we have cultivated trade. They have en-

couraged it, supported it, and rewarded it. They have taught it inimitably in their schools. They have talked about it, written about it, and insisted upon it for generations. They have studied it and cultivated its lore. They have paid homage to it as the greatest of human gifts and the vehicle for the expression of the whole gamut of human emotion.

The universal soul-language. Music is a universal language of the soul. With art and poetry it embodies the expressive trinity of human feeling, and there can be no question that it should play a much more prominent rôle in our lives than it yet does. If a change in this regard is to be wrought, however, it will be necessary first of all to revamp our school-teaching of music. For some years most communities have included music among the subjects in the curriculum, and children have been drilled in singing the scale and in carrying simple tunes. More recently the best schools have done something along the lines of musical appreciation. But we have never given the subject the place it deserves to have in the schools. An occasional room equipped with a piano, far more rarely with a phonograph, a room teacher sometimes musical and sometimes not, and in some communities a special teacher of music who gets around for a few minutes every week or so — these things indicate the half-hearted way in which we have endeavored to introduce the study of music as a curricular subject. The end result of all this has been that children have left and are still leaving the schools with next to no foundation for appreciating, to say nothing of skill in producing, music. Those parents who desire their boys and girls to really learn to play or sing must provide private teachers for the purpose.

Lines of training in music. Every child at all competent to receive it should be given musical training along three lines in the school.

In the first place, he ought to learn to appreciate and enjoy good music. With the modern facilities offered by the phonograph there is no valid reason why the finest in the world's music should not be readily available in every school-room in the land. Even an unmusical teacher may be tolerated if she has the great voices and fingers of all nations at her command. Can the schools afford this equipment? If society is content to limit the education of its youth to a utilitarian, bread-and-butter content — no; but if society desires to train up a generation of youth sensitive to whatever is beautiful and inspiring, then the answer is inevitably — yes. The finest instruments and the best records made should be a part of the general apparatus and equipment of every school building, available at all times for any teacher and for any grade.

The second aim in the school study of music should be informational. Considerable time during the year should be devoted to a study of the great operas and the great composers. The lives and creations of the noted musicians are filled with inspiration, romance, and tragedy, and their struggles and achievements and aspirations should be made a part of the conscious heritage of every one. The stories of most of the great operas are absorbingly interesting, and some definite familiarity with their themes and with selections from the noble music that expresses them is an aim well worth including in the teaching and study of music.

The third aim of school music has to do with the actual training of the child's voice and his rhythmic sense. Investigations seem to show that there are very few real monotonous — hardly more than one in any schoolroom. In other words, most children can profit by training in singing, and while a few will never succeed in achieving much, most of them have considerable potentiality. It is open to some question whether the grade teacher should be expected to

teach singing. The probabilities are that instead of trying to make every teacher a teacher of music, as certain continental countries do, we would do better to provide more special teachers of music so that one would be available for a quarter of an hour or more every day in every room. The stimulus which such earnest and methodical efforts to really teach music in the schools would have is incalculable. Under the influence of this sort of teaching more children would find ways of taking private lessons in instrumental or vocal music, there would be keener interest in orchestras and glee clubs, and the whole rising generation would be directed happily toward higher ideals both in musical appreciation and in musical achievement. Far more attention also should be given to marching and folk-dancing as an invaluable means of developing a sense of rhythm and grace and control of body movement. The school of the future will devote itself quite as assiduously and systematically to these things as the traditional school has always done to the three R's.

Hygienic possibilities. The hygienic possibilities in the study of music are as numerous as they are striking. We may mention some of the more obvious. The youth who has been introduced pleasurably to the general subject of music is admitted automatically into a new world of impression as well as of expression. Music yields a new mastery, a new zest in life, a new interest, new confidence, new friends, new ideals and ambitions, new appreciations. Study along musical lines opens up dormant brain tracts and makes possible a higher and wider integration of conscious experience. Musical interest introduces one to the great artists of all times, and suggests a common tie with Scandinavian and Frenchman and German and Russian and Italian and Spaniard and Pole. Music is a new-old universal language that makes the singers and players of all nations of common kin

and blood, and that binds together all peoples in peculiar bonds of admiration and sympathy. Music soothes or arouses us; it fascinates and charms and inspires us; it lulls us to rest or it incites us to activity; it makes us weep or it makes us cry aloud; it saddens us and gladdens us. In fanciful interpretation of its theme we walk beside still waters or we plunge past mighty waterfalls; we are wafted light as air over scenic countrysides, or we falter wearily and heavily through dark and thorny valleys; we ride into sloughs of despond and into cities beautiful; we listen to mighty tempests, to great conflagrations; we wander amid sylvan retreats and we float idly along gently flowing rivers spangled with patches of sunlight and leafy shadows. To free the human mind from the commonplace, and from its servitude to trade and bickering and the humdrum of life, where shall we turn better than to music for surcease and refreshing? And how shall we better insulate youth against the consuming fires of the Commonplace than by introducing him early to his rightful and noble heritage — fine music?

IV. THE HYGIENIC TEACHING OF HISTORY

Political intrigues, alarms, wars, and rumors of wars — these appear to have been ever uppermost in the minds of those who write histories, and consequently therefore of those who have taught and have studied history. What student does not think rather of Pharaoh than of Moses? Of Xerxes than of Daniel? Of Alexander than of Socrates? Of Cæsar than of Justinian? Of Nero than of Cicero? Of Borgia than of Dante? Of Cœur de Lion than of Bacon? Of Charles I than of Shakespeare? Of Napoleon than of Pasteur? Of Bismarck than of Goethe? True, there always have been wars and political connivings and bickerings resulting from wars, but there have always been also, though

submerged in the background of the picture, human beings striving to better their conditions and groping toward higher things. It is this endless panorama of human experience, of social development, of moral and spiritual evolution, of mankind feeling his way upward toward the light, that the historian of the past has been neglectful of in his zeal to portray vividly and completely the political and the martial. Pawns have been disregarded, and kings and queens and knights and bishops paraded across the checkered squares of history.

Three important aims in study of history. From a hygienic standpoint there appear to be three supremely important aims in the study of history.

The first of these is the creation of wider human sympathies and tolerances. History should lift the thick fog that veils from our view the lives and records of other peoples and other civilizations and periods; it should emphasize the community of interests and ambitions that characterize and have always characterized all people everywhere. It should arouse sympathy for those who strive for self-determination, for freedom, for equality, for the general enrichment and betterment of life, for beauty, for honor, for a place in the sun; it should stress every venture and adventure that make human hearts beat faster and eyes glow more brightly and tenderly; it should point the way of friendship and amity with all the nations of the earth; it should draw all peoples more closely and sympathetically together; it should lay the foundations in the mind of youth of a will and a gladness to coöperate actively and in a large way with others in the ushering in of a new millennium of international accord and understanding. The sanity and healthfulness of mind which history taught in this manner will develop in any generation is infinitely beyond comparison with the narrow-minded prejudices and the national jealousies and provincialisms so characteristic of the traditional way of

writing and teaching history. When shall we have historians who see their theme in this perspective and can portray the events of the past in their rightful proportions? Ten years after the greatest war of all time the world has nearly forgotten it; yet twenty-five centuries have elapsed since the pigmy battles of Marathon and Thermopylæ and Salamis, and a knowledge of these is about all the high-school student carries away with him from his study of Grecian history!

The second aim of historical study arises out of the first; it is the building in the learner's mind of an appreciation of the past — first, of his own country, and second of other countries and other peoples. There is no true sentiment of patriotism possible unless and until one has lived intimately with the past of his native land. True, there may be blatant protestation and scrupulous observance of patriotic customs, and wild jingoistic effervescence on the national holidays, but genuine patriotic sentiment is experienced only when one has learned something of the cost in life blood and in sacrifice, in suffering and privation, in loneliness and fear, of one's native land. Where is the skillful teacher of history who can reconstruct with and for her children the life and aspiration of the explorer and the pioneer, the hunter and the tradesman, the discoverer and the inventor, the builder of roads and canals and railways, the minuteman and the soldier, the statesman and the prophet, the teacher and the preacher? Only after he has passed by the whole glorious panorama of building and suffering and denial and conquest can the youth behold the flag with misty eyes, or bow his head in humble gratitude before that noble Plymouth Monument to the Forefathers, or sing with vibrant voice: "Oh beautiful for Patriot's dream that sees beyond the years." This and this alone is the true sentiment. So with other peoples and their countries.

History, properly taught, will alone make it possible for youth to understand the glory that was Greece and the grandeur that was Rome. Sympathetic interpretation of the pages of history will alone prepare the learner to appreciate the exile of the Israelites, the oracular utterances from Delphi, the fortitude of the Spartan, the false brightness of the Cæsars, the faint harbinger of coming dawn in the court of Charlemagne, the zeal of the crusaders who would seize the Holy Sepulchre, the gay notes of the Minnesingers and the troubadours, the Golden Age in England, the revolutionary movements of the eighteenth and nineteenth centuries, and all the other significantly human facts of history. As much sympathy and cordiality must be evinced in teaching the historical evolution of other countries as in teaching that of our own land. History is not to glorify one people at the expense of another — as has ordinarily been the case, for example, in the teaching of the Revolutionary War in our lower schools; history is rather to point out the similitude and community of striving and ambition and purpose of all peoples. Only through the rational and common-sense development of historical concepts through these means may an individual hope to be fair-minded, generous, and sympathetic in his thinking and be able to react intelligently and sanely to the day's news as served up in his newspaper. Bias and prejudice and suspicion are the fell offspring either of ignorance or of unsound and incomplete study, and are eminently bad attitudes to harbor. Faith in man, on the other hand, confidence in whatever is human, and an ingrained respect for the stirrings in the hearts of men, of whatever race or creed or color, are excellent attitudes that the mental hygienist would cultivate incessantly and untiringly.

The third hygienic aim in the teaching of history is a provision of a basis for interpreting the past as incarnate in

the present, and for evaluating the latter in the light of the former. It is a revelation to the student of history to learn that the same factors and forces are at work to-day in the world as were at work in Athens and in Rome, and in every other civilization since; that certain ways of living and ideals of life have always resulted disastrously not only for individuals but for nations as well; that certain other ideals have always eventuated positively and beneficially in human experience; that there is one common passion for freedom regnant in the hearts of all men, whether in Rome, or in England, or in the American colonies, or in France, or in Italy, or in Poland; that for certain objectives men everywhere will undergo hardship and privation and will even lay down their lives uncomplainingly; that prejudices and irreconcilable attitudes have always characterized people of whatever land or clime; that great wealth and ease lead commonly to arrogance, and often to stagnation and decadence; that righteousness in very truth exalteth a nation and that sin is a reproach to any people. The student of history ought increasingly to form the habit of making sane comparisons; of envisaging the totality of human experience; of reading yesterday's errors and yesterday's wisdom in to-day's harvest of chaff and of wheat; of seeking general truths and axioms that may be deduced from the past records of the race and that may be applied experimentally to man's present condition, progress or inclination. When the study of history, even in the upper grades and the high school, leads to such active and progressive thinking as this it will amply justify its time-honored place in the curriculum, for it will become not merely a dead record of dead men's deeds but rather a living preachment of the eternal verities of life and aspirations as they have existed for all time in the human breast.

Principles to be emphasized. Two important principles in the teaching of history should be emphasized.

In the first place, while patriotic appreciation ought by no means to be neglected in the childhood years when enthusiasms are most readily and naturally builded, the foundations of a wider world citizenship must be laid. The passing generation learned whatever history it knows in the narrower and conventional guise of nationalism; in consequence, it finds itself suspicious and uncertain in a world suddenly grown small and compact. It cannot reconcile its limited concepts with the actualities. The rising generation must be saved from this paralyzing provincialism and made friendly and gracious to the new order and the new day. National consciousness, while not undermined, must be submerged in world friendship and world citizenship.

In the second place, the study of history should always be entrancingly interesting. It is the only subject that has the wide world for its stage and the complete range of human intercourse for its theme. Its investigation should present to the eager mind of the learner a great unfolding drama — now of romance and adventure, now of tragedy, now of tragi-comedy. There is after all no drama as epic as the voyages of the discoverers, as tragic as the lives of the great patriot-martyrs, as lyric as the sweep of civilizations across the world's horizons. Teachers make a fatal and miserable mistake when they fail to bring it about that the study of history shall cast a magic spell about their pupils. Yet how many there are who teach this thrilling subject as so many isolated events, so many dry and unrelated dates, so many uninteresting marches and battles and retreats, so many lengthy agreements and treaties and articles and political connivings!

The common man — man the adventurer, man the builder, man the patriot, man the worker, man the seer and the dreamer and the poet — is apt to be kept unobtrusively in the wings while emperors and kings and viceroys and

legates and popes and princes strut and fret their hour selfishly upon the stage of history! The latter appeal by their constituted or usurped dignity and power, but the former appeal by their very humanness, their very kinship with those who study and observe them ages afterward. With all of life and all of human achievement to draw upon, how can the teacher of history fail to inspire and enthuse youth with what man has set himself in all the ages of the past to accomplish? The attitudes of sympathy and understanding, and the general interest in whatever is human that enlightened and enthusiastic teaching of history must inevitably foster in the minds of youth are, from the viewpoint of mental hygiene, of supreme value and importance.

V. THE HYGIENIC TEACHING OF GEOGRAPHY

Fundamental aims. There are three fundamental aims in the teaching of geography:

The first aim is to stress the fact that the ultimate purposes of life are universal, wherever there are human beings, and to develop in the mind of the learner a new *Weltanschauung*, a new consciousness of brotherhood, a new meaning of world neighborliness. Geography should make one aware of the circumstance that in the frozen Northland, in the Russian steppes, in the desert wastes of Arabia and Africa, in the man-filled stretches of China and India, in the active temperate lands and the sluggish torrid lands — everywhere, substantially the same things are sought after, are fought over, are dreamed of, are shunned and feared. Geography should teach the universal kinship of man, regardless of civilization or custom or race or dwelling-place. At the same time it should teach the unmistakable influences upon life of winds and rains, of climate and vegetation, of language and custom, of ethics and religion, of education and politics, tending to make it outwardly varied without chang-

ing its essential homogeneity. Understanding thus the motives and ideals that activate the ways of thinking and of living of human beings, the student is in a position to judge causes and effects for himself, and he will be in a better position to mark the rôles played by governments and legislatures in the international situation, the dangers to the peace of the world wrought by demagogues, politicians, obstructionists and obscurantists, and the evil potentialities of the jingo press ever seeking out as it is new points of issue, new disputations, new terrifyingly imminent complications and dilemmas and parading them disgustingly before a public often little less gullible and suggestible than children are.

The second aim in the teaching of geography — the broadening and extending of the personality — grows out of the first. Left in smug and self-satisfied isolation, life shrivels and becomes narrow; generous impulses and sympathies stagnate; existence rots at the roots. On the other hand, brought into intimate touch with others, with our world kin, we expand and broaden; life opens into new and deeper channels; we become one with the world. It ought to be the ambition of every teacher of geography to accomplish this result increasingly in the minds of the pupils as they pass upward through their educative experience. The trouble with much of our education — and notably is this the case with geographical study — is that it does not really educate, lead out, and emancipate, but rather enslaves and restricts us.

Since time long out of mind it has been the practice among English parents of means to supplement the school and university training of their sons by sending them for an extended tour of the Continent, and even beyond to the East, in order that they might receive something of a world outlook that could not possibly be obtained in the lecture

hall and the library. How much of the traditional success that has invariably attended the British colonization scheme, and how much of the remarkable *esprit de corps* that has held the British Empire together, have been due to this splendid adjunct to the formal education vouchsafed to sons of Britain cannot be estimated. Certain it is, however, that no people without some such perennial means as this to keep alive the interest in remote lands, and to expand the narrow range of human intercourse and contacts, could hope to build and maintain a State so heterogeneous and so far-flung upon the seas as has Britain. Not every world citizen-in-the-making can hope to journey far afield along earth's highways and byways, but it ought to be the fundamental purpose of every teacher of geography to do much to make the life of the world wherever it is lived intelligible and interesting to her pupils, and to create in them a lively sense of kinship and brotherhood with all peoples. *Human* geography from a hygienic standpoint is of far greater importance than commercial or regional or physical or economic geography.

Yet the third aim of geographical study — the development of an appreciation of the universal relationship of man to the environment in which he lives — cannot and should not be neglected. To behold the operation of Nature's mighty laws and forces and their inevitable influence upon man and man's civilization and ways of living; to work out the cause and effect relationships between soil and product, climate and occupation, rainfall and fertility, location and trade, transportational facilities and commercial expansion, waterpower and manufacturing; and to marvel at the handiwork wrought by man all over the globe to encourage intercourse and trade — these are to awaken in the mind of the student a new consciousness and a new comprehension.

The relations of man to the world around him. In this

connection also geographical study cannot fail, if properly directed, to arouse in the soul of youth a sobering and steadying sense of the littleness as well as the bigness of man in his created and ever creating world. Just as geographical study reveals man as Brobdingnagian in his pyramids and his canals and his skyscrapers and his railroads, so it must also reveal him a Lilliputian in his impotence and helplessness before great cataclysms of nature, when cities are leveled in the dust; vast upheavals and floods and conflagrations when habitations crumble and fall in ruins; slight and unseasonal drops in temperature when thousands of acres of crops are ruined and long droughts that shrivel and destroy other thousands of acres, and bring famine and pestilence in their train; the forest fires that sweep pitilessly over the woodlands, blackening and ruining and destroying all life within their frightful sweep; and the dread "twister" catapulting down upon peaceful countrysides and leaving havoc and death and destruction in its wake. These gigantic and inscrutable forces of nature cannot be neglected in the study of geography, and beside them man is a pygmy indeed, and must so be depicted.

Man and the solar system. So, too, in whatever supplementary study of the solar system may be included in geography, man's littleness should be emphasized. In days of great exploits, of great material achievements, of inventions that link the uttermost parts of the earth together in time and almost in space, the finite mind is in danger of arrogating to itself too great power, too invincible strength, unless it be kept steady and sane by the recognition of the imminence of force and might infinitely unknowable and infinitely unachievable. In the study and contemplation of our solar system, and beyond that of the stellar universe — youth may find indeed a steadying and a sobering agent that will teach him to keep his feet on the ground and to lift up

his eyes not unto the hills but unto the starry universe for inspiration, for wonderment, and for sustenance of the spirit. How vividly still does the author recall a golden day in adolescence when among some books circulating in a traveling library he found the volume *Man's Place in the Universe*, by Alfred Russel Wallace! Far into the lamplighted night he read with wide eyes and inflated soul! Never before was such a light on land or sea as burst upon his enraptured mind as passionately he read of great unknown universes, of incalculably long light years, of only half-understood spectroscopes and angles of reflection and orbits of attraction! From that momentous night the narrow horizons lifted, and a new existence and a broader life were born. Formal study of geography did not achieve this awakening, though it should have done so; it remained for a book, come upon quite accidentally, to inspire what ought to have been wrought by a teacher of geography.

Two further suggestions should be made in the hygienic teaching of geography. In the first place, too much emphasis can hardly be placed upon the use of all manner of graphic supplementary materials in the teaching of this subject. Too often and too long the study of geography in our schools has been chiefly a memoriter process in which drilling upon capitals and boundaries and locations has occupied the dominant place, and in which slavish following of a printed page has been the only method conceived. Small wonder that the interest aroused in the subject by such barren and fallow pedagogy as this has usually been pitifully slight. There are few if any subjects in the curriculum so capable of fascinating investigation as is the subject of geography. Through wise use of such supplementary materials and devices as automobile route books and road maps, railway time-tables and ticket-books and maps, magazine and newspaper articles, foreign stamps and cor-

respondence with school children of other countries, the excellent available geographical readers, slides and films, product maps and industrial and commercial exhibits, excursions and field-trips, and the like, there is no apparent reason why geographical study should not be made as fascinating to the learner as the most interesting romance.

Relating geography to local surroundings. The other suggestion is that as far as possible geography should be self-constructed, and especially is this the case with home geography. There is much charm in the amassing of information about one's own town or city or State that is not found in any geographical text. One of the best series of lessons on the geography of the United States that it has been the author's privilege to see was developed thus. It chanced that two young women — friends of one another — were teaching in widely separated localities, one in a New England city and the other in a Far Western coast city. The idea occurred to these friends that each school could help the other to make the geography of its section more vivid and attractive. The children — sixth-graders in both instances — set to work with enthusiasm, the New Englanders compiling a "Geography of New England," and the Westerners compiling a "Geography of the Western Coastal States." For several weeks the research went on. Whatever interesting and valuable information concerning the people and their manner of living could be found anywhere by either school was noted down, and then written up as carefully as possible. Each pupil worked either independently or as one of a group of several upon a single topic. After the information had all been gathered and written down and edited, it was neatly bound in volumes fittingly inscribed and dedicated to "Our Friends on the Other Side of the Continent," and mailed to the other school. There amid the greatest enthusiasm the material was

studied, locations were identified, supplementary textual reading investigated, and both teacher and pupils thoroughly enjoyed every moment of the weeks of work devoted to both the original study and the mastery of the new material from across the continent. Thus was the content of geography actually and actively constructed by the learners who felt themselves in very truth seekers after wisdom that was to be first mastered and then imparted to others.

Foreign geography. In the study of foreign geography this same ideal of individual investigation and discovery should be maintained as far as possible or economical. By following the lead of a child's interest and reading it should be possible to motivate the major part of the geography of the earth, and in so doing develop in the minds of the learners those habits and attitudes of interest, originality, of curiosity and fascination for the new and strange, that are of such prime importance in the building of lives that are interesting, valuable, and self-satisfying. Every newspaper brings to the doorway the problems and the customs of peoples of other lands; magazines and books depict their picturesque ways of living; bureaus of economics and trade organizations broadcast literature teeming with charming bits of information about them. It requires only a thoughtful teacher to integrate all this material and make it the starting point of most vivid and enthralling study of the geography of other lands.

VI. THE HYGIENIC TEACHING OF SCIENCE

1. *Natural history*

Principal aims. There are three principal aims in the teaching of natural history from the standpoint of hygiene. The first and chiefest of these is to make the great out-of-doors an attractive and interesting place in which to seek

relaxation and enjoyment. In these days of indoor amusements that lure millions, there is strong need for the competition that the call of the open spaces and places will offer when once they have been made intelligible and their charm experienced. Automobilists are within easy reach of the cool woodlands and the spreading fields, but their eyes are too often closed to the beauty and appeal of the natural objects around them. It would be well worth while to raise a generation of people who would prefer to cover half the distance in a holiday's trip, and see and enjoy more, than to race across the land seeing nothing but the highway and the dust of other automobilists, and inhaling instead of the fragrance of a meadow the exhaust fumes of the lurching car ahead! To make for the rising generation trees and flowers and grasses and mosses and insects and birds and the wild life of nature objects worthy of searching out and study is to provide a source of pleasure, of relaxation, and of inspiration that must become increasingly indispensable as life becomes more and more artificial, sophisticated, and concentrated.

The second hygienic aim in the teaching of natural history should be to set a backfire to the growing mechanistic trends of life. The blessings conferred upon man by modern science are by no means unmixed blessings. Human invention and achievement have enriched and supplemented our existence incalculably; they have added to our ease, removed much that was formerly drudgery, and yielded the common man luxuries that kings of a generation ago could hardly have dreamed of; they have annihilated time and space, reduced the working hours, and lent enjoyment and thrill to the leisure hours. But, on the other hand, they have turned our attention away from the cultivation of spiritual and cultural values and focussed it sharply upon things. "Things are in the saddle," as a recent essayist

complains.¹ We cannot possess the marvelous products of scientific labor and research without tending to make them more or less central in our lives. The simple life, in other words, is in extreme danger of losing its pristine appeal and charm for a generation that worships the God of Material Things. The teaching of natural history may become the surest means of salvaging humanity from this impending disaster by arousing in the on-coming generation a saving interest in the things that revivify and purify and sanctify. It may well be that the days of the simple life are forever gone by, and that we shall never again produce a Lincoln or a Hawthorne or an Emerson or a Whittier. Certainly great personalities like these do not blossom out of a mechanical and materialistic soil; they must have the sunlight and the dew and the flowers and the meadows for their nurture. To the teacher of nature it must be given to preserve and perpetuate for her pupils the sweet scent of the blossoms and the throbbing life of the fields and woods. She shall point the way of escape from the material and the physical and the crass and indicate the high road to spiritual realms that glorify nature and lead easily and surely to Nature's God!

The third aim in nature study is the opening up of an entire new world of experience, the galvanizing into functioning of a whole new brain tract. It is always an occurrence of prime hygienic importance to the individual when new and valuable knowledge is acquired. A new line of interest, a new curiosity, a new source of healthful pleasure — these are ever beneficial in their reaction upon the personality. The lure of natural history supplies all of these values, as well as imparts a new mastery and confidence, a new awe and reverence for the whole created order of life, a new passion to investigate, study, observe, compare, explore. There

¹ Samuel Strauss in *The Atlantic Monthly*, November, 1924.

is a satisfaction that obtains in knowing a tree, recognizing a bird on the wing, understanding the habitat of an animal, knowing a flower or a leaf or a moss or an insect, or possessing any other worth-while information, that is extremely gratifying to the individual and that comprises one of the striking features of a healthy personality.

Suggestions for the teacher of natural history. Three important suggestions for the teaching of natural history should be borne continually in mind by the teacher.

(1) She must herself thrill and pulsate with interest in her subject. A genuine, sincere, and appreciative love of nature is indispensable to any teacher who would hope to arouse such attitudes in others. There is perhaps no subject in the curriculum that becomes as speedily vapid and unattractive as does nature study under the stiff and formal teacher who countenances it merely because it is in the curriculum.

(2) Beware of books as the exclusive or even the primary means of awakening young people to the charm of a living world of nature. One of the most vivid and mortifying recollections of the author's own boyhood, passed in a school where what little of natural history was taught was served up from the stupid pages of a book, is of a day in late March when, athirst for the bubbling sap of the maples, he bored an augur deep into the heart of an oak tree, inserted the spout, hung on it a lard-pail, and then sat down on a rock to await the anticipated surge of the delicious sap! He would perhaps have been waiting yet had not an old woodsman, innocent of books but wise in lore, chanced to tarry long enough in passing by to initiate him satirically into the mysterious difference between a rock maple and a red oak! Let the out-of-doors teach the children; away with in-door nature study; let the bird-glasses and the bird-books and the tree-books and the specimen jars and the

nets, and all the rest of the paraphernalia of the naturalist, be made ready, and let the school be adjourned for an occasional afternoon to the open fields and woods if possible, but at least to the park or the zoo or the gardens. In any event, let real specimens be studied, even though it must be within four walls. And let the pupils learn directly and at first hand the ways and the haunts and the characteristics and life history of the denizens of field and yard and wood and vale. Above all, remember to heed the maxim of the gentle Swiss schoolmaster — Pestalozzi — who cautions the teacher to be silent “when a bird sings at the casement or in a neighboring tree-top, since a better teacher than you is speaking.”

(3) Play lightly upon terminology. We seek and covet for boys and girls not facility in nomenclature but rather love of nature. It is possible for a teacher so to burden prematurely the minds of the learners with classifications and Latinized forms and names, as to mar for them much of the pleasurable that should attend the study of natural history. With expanding knowledge and the increased interest that that will lend to the work, some attention may properly be devoted to names, but very little emphasis can safely be placed upon nomenclature in either the elementary or the high-school classes. Teachers must hold actively in check their zeal for this sort of thing, and seek ever to arouse added interest in life processes and habits and conditions in animate nature.

2. *Elementary science*

Aims in teaching science. Four prominent aims which every teacher who would teach science hygienically must bear constantly in mind should be distinguished.

The first of these is concerned with making the physical environment in which he lives reasonably comprehensible

to the learner. Mankind has evolved remarkably from that primitive condition in which fear of his natural surroundings haunted and terrorized him; he has evolved perceptibly also since those less remote times when he was a prey to all manner of superstition, and when any unusual manifestation either in nature or in man himself led him in the one case to postulate some supernatural process and in the other to seek valid means of protecting himself from the evil eye, and the individual possessed of the devil, and the witch, and all other vehicles of enchantment and of black magic. Knowledge has verily cast out fear from the human breast and replaced it with intelligence and reason. It is the function of the study of science to teach youth the truth, that the truth may make it free and unhampered by superstition and fears and ignorance; it is the function of the study of science to acquaint youth with something of the forces and principles operating all about him and within him in order that knowing he may appreciate, and appreciating he may marvel. Rightly taught, science will, far from making the learner overwise and sophisticated and conceited, make him rather humble and modest, and fill him with a fine sense of his own proper relationship to all that surrounds him. It is the function of the study of science to endue youth with some comprehension of heat and electricity and light and gravity and attraction and energy and matter and force and weather and cell and pressure and stars and gases, and a score of the agents and media in the observable universe to the end that life may possess greater meaning and significance, and in order that it may be lived more intelligibly.

The second hygienic aim in science teaching should be to lead the learner to value and appreciate more accurately the eternal quest of the scientist after truth and understanding. The knights of Arthur's court sought ever the

Holy Grail. With something of the same singleness of purpose and of consecration, the modern man of science searches passionately and with abandon after the Holy Grail of Truth and Reality. True, his quest lies through the microscope and test tube and the laboratory, but his goal is the same unselfish service of humanity. In an age whose very civilization is founded upon science, it is an important task for the schools to perform in arousing in those who pass through them both a respect and a sympathy for the calling and program of those who would push outward the horizons of the universe and make existence more interesting and satisfying and at the same time more purposive and challenging. The untaught mind is too likely to disparage and belittle the work of the scientist, largely because it does not comprehend, and has little interest in the intangible and the uncertain. The gifts which the inventor and discoverer supply richly are taken as a matter of course, but the givers are often neglected and even derided by those who call themselves practical-minded and hard-headed. It is good for the healthy mind to sympathize with the aspirations of the investigator and to pay honest tribute to his calling and his work.

The third hygienic aim in the teaching of science is to create in the learner a broad-mindedness and a sweep of view that can be achieved only through an envisagement of the achievements and program of science. There is probably no subject in the curriculum so capable of releasing the learner from his provincialism and smug narrowness of outlook and interpretation as is science. Science builds wholly new concepts of every phase of human existence; science reveals the wonder of creation, of growth and development through lower orders to higher; science uncovers untold and innumerable marvels of power, of energy, of law; science pushes back the dust-covered curtains of the ages

and discloses the workings of the great Creative Mind as it forges an earth, a firmament, and a universe. Youth can hardly imbibe this wisdom too early, can hardly learn too young to cultivate habits of broad-mindedness, attitudes of awe and admiration; ideals of searching out and finding truth wherever and whatever it may be. These ideals have been sadly jeopardized by another generation in much of its dogmatic and provincially authoritative teaching, and it has ever been a difficult thing for the mind of youth to throw off the shackles of early misteaching, and embrace a universe and a purpose and a Creator infinitely more marvelous and powerful than were permitted by an age still paying tribute to ignorant and willful limitation of the Creative Purpose. Let youth be emancipated from narrow and constricted concepts; let youth envisage the broader and grander truth; let youth walk humbly before a more mighty and omnipotent and omniscient God! Mental hygiene shall thrive upon such free and untrammelled conceptions as these. Life cannot but grow murky and dark amid the stifling and paralyzing conceptions that have played a sad rôle among us for generations.

The fourth hygienic aim in the teaching of science is the development of the wonder sense. Let youth study the unseen world revealed by the microscope; and the starry skies bespangled afresh by the telescope; and the miracle of life at the seaside and within the adjacent waters; and the infinitude of energy and force within the atom and beyond that in the molecule and the electron; and the might of the sea and the sky and the waterfall brought under man's control to do man's bidding; and the myriads of other miracles achieved by modern science — let youth behold all these things and see then if he will not exclaim and marvel! Let him commune with the great master minds of science, and learn of them humility and awe and wonder. Let him

exclaim with Newton and with Harvey and with Darwin and with Lister and Koch and Pasteur, and with Tyndall and Herschel and Lubbock, and with Agassiz and Thoreau and Burroughs and Fabre. Let him retread the light footsteps of Halley and Galileo and Lavoisier, of Peary and Nobel and Steinmetz, of Edison and the Wrights and Banting. Romance and adventure far more thrilling than occur in the pages of fiction are to be had in unfailing abundance in the study of man's conquest of the sea and the air and the sky; of disease and suffering and fear; of microscopic and embryonic life, and of the whole teeming environment in which man finds himself set down. In the study and analysis of these great achievements youth cannot fail to find a freer life and a higher air, a finer inspiration and the stirrings of a nobler and more glorious purpose. Cultivation of the wonder sense is most hygienic and healthful for the finite mind, too prone by virtue of precept and example if not by nature, to take its ease, to be indifferent to raising itself from the enshrouding mists and seeking to peer through the great mysteries and the great miracles of human life.

TOPICS FOR SPECIAL STUDY AND REPORT

1. How able are you to make simple drawings of common objects? In how far did your school training contribute to whatever ability you may have in drawing, sketching, coloring, etc.?
2. Recall the instruction in music which you received in school; did it make you appreciative of music? Did it introduce to you the great musicians and their work? Did it tend to make you enjoy singing? Criticize the methods employed by your room teachers or by special teachers, and try to evaluate the results achieved.
3. Do you feel to-day, in retrospect, that your study of history in the elementary and high school made you consciously tolerant of other peoples and periods? That it led you to form a vivid appreciation of the past of your own country? That it deepened your patriotism? Or does it seem to you that history was made narrow in its interpretation, and that the light it threw upon the past was unreal and uninteresting?

4. Are you more or are you less of a citizen of the world to-day than you were in the lower schools? What influences have been responsible for the change wrought?
5. Can you recall that your study of geography made all the peoples of all the world real and interesting to you? Or did it leave in your mind decidedly indefinite and hazy notions, and a general feeling of indifference for your neighbors around the world? In either case, what methods, materials, and ideals were employed by your teachers to achieve the results?
6. Do you find joy and refreshment in the out-of-door world of natural objects? Do you consciously and pleasurably seek their companionship and charm? Can you really enjoy intelligently an insect, a bird, a flower, a tree? Is this because of the appeal made by the study of natural history in your school experience, or is it in spite of the lack of it?
7. Do you have pronounced and definite interest in the things of science? Do you ever do any special reading along the lines of scientific investigation and discovery? Do you feel that you comprehend in a measure some at least of the objective phenomena and some of the principles operating in the world about you?
8. State in writing the general impressions you have formed in studying Chapters X and XI concerning the possibilities of teaching the common branches from the standpoint of mental hygiene.
9. Suggest three hygienic aims and two hygienic principles of teaching for each of the following subjects: (1) health; (2) civics; (3) French; (4) the Constitution of the United States.

CHAPTER XII

THE MENTAL HYGIENE OF STUDY AND STUDY METHODS

Unhygienic aims and purposes of study. Meredith H. was a ninth-grade pupil who was possessed of two things, a mediocre mind and a distaste for study — certainly an unfortunate combination of traits in a young high-school freshman. Yet despite her limitations, which no one appreciated more keenly than she did herself, Meredith by sheer force of will was wont to apply herself long and faithfully to her books in a creditable determination to master them as best she could. Her method of studying is unfortunately typical of the way huge numbers of students naively set about their assignments.

Meredith must always do her home work sitting on one foot in a high-g geared rocking-chair, which she drove to the limit of its speed and endurance. After starting this conditioned reflex into vigorous functioning, the first thing she did as she settled down to study was to glance at the clock; the second thing was to sigh; and the third thing was to read over the assigned pages in a low monotonous pitch that speedily drove all other persons from the torture chamber. After completing thus the first reading, Meredith proceeded to repeat the performance exactly; i.e., she sighed, looked at the clock, and droned through the assignment a second time. This was followed by yet a third sigh, a third glance at the clock, and a third reading of the lesson, after which a finishing sigh and clockward look completed the ordeal and the book was tossed upon the table. The lesson was mastered! It is hardly necessary perhaps to add that Meredith

failed nearly every subject consistently in the ninth grade and was compelled to repeat the year's work.

McMurry cites¹ among other corroborative examples of this utter lack of comprehension of how to study among learners generally, the instance of a boy in one of his own early schools who was called upon the day after a new book had been presented to the class to tell what he had learned that was interesting in his book. The boy surprised his teacher by making a prompt and excellent beginning and by phrasing his statements in unusually fine language; but he surprised him still more by sitting down suddenly and leaving a sentence half finished. When questioned, the boy replied, "That is as far as I got." On glancing at the book McMurry noted that the pupil had been repeating for him verbatim the brief first page of the text.

McMurry's pupil was of the same piece as Meredith, and both are legion in our schools!

Wrong conceptions as to studying. For some years the author has found it profitable and extremely enlightening to interrogate young college students, just out of high school, in some detail upon the methods of study which they have individually developed, or which they may have been taught, and upon their general comprehension of what it means to study. Two universal conclusions stand out unmistakably from these queries. In the first place, almost without exception still, and despite the efforts of educators in recent years to impress upon teachers the importance of training their pupils along these lines, young high-school graduates have never had any systematic, nor much incidental, instruction in economical methods of study. In the second place, left to their own devices and taking their cue from teachers' expectations and leads in conducting recitations, young students seem to have hit upon the same

¹ McMurry, Frank: *How to Study, and Teaching How to Study*, p. 4.

memoriter method in their study to-day as McMurry complained about twenty years ago in his monumental book, *How to Study and Teaching How to Study*. They tend still to identify studying with memorizing, thus missing the fundamental point of all study, which is thoughtful and intelligent analysis.

Hygienically, this state of affairs is about as bad as it could be. Under such an aim and with such concepts, the act of studying becomes laborious and disagreeable for every one save those relatively few pupils who chance to have been endowed with excellent verbal memories. These latter naturally shine brightly in the schoolroom firmament, though their actual capacities for real analytical study may be no higher than those of the dimmer lights who blink feebly and give off little refulgence. For those other and more numerous pupils study of a lesson is certain to be very discouraging and unattractive, and recitations become for them a daily unfailing source of anxiety, and sometimes of panic or actual rebellion.

Teachers who conceive the end of study to be facility and accuracy in giving back the facts perused when they are called for in the ensuing recitation are of course committing the unpardonable sin of training up either slaves or rebels — never constructive builders. Where zest and curiosity and the will to master are never challenged, free and determined effort are never put forth. Where there is no vision the students perish. On the one hand, we have those who slavishly absorb as well as they can what the textbook imparts, offering it as the final word of authority and inspiration at class time. The confident state of mind of these students is not unlike that of a much-henpecked gentleman of the writer's early acquaintance who, whenever volunteering an opinion, was wont always to preface it with the strange but incontrovertible phrase: "She says!" Here was authority

at once complete and indisputable, comparable only with the "it says" or "it said" of the pupil who is assuring his teacher, in the conventional way, that he has studied the lesson and accepted it at its face value.

On the other hand, there are those pupils who cannot absorb verbatim the opinions and statements of their books, and who therefore develop passive attitudes; who busy themselves with dawdling and inattentive thumbing of the pages; who are continually in a state of readiness to be distracted; and who become potential if not actual centers of unrest and disturbance from the first period on throughout the school session. One day is not very much different from another day in the experience of these pupils, and they drag on through school without ever really warming to their work and without ever throwing themselves into the fray. The school influence barely scratches the surface of their natures, and never reveals their own deeper possibilities even to themselves. They pass out from the doors of the school unable to attack intelligently an intellectual problem, having no zest for self-improvement and mastery, and possessing no originality or purpose of their own.

The three hygienic aims of study. Properly conditioned and regulated study has three underlying purposes.

The first of these is the arousal of the active attitude in the envisagement and attack of a situation. This attitude ought to be determined, eager, alert, aggressive; it ought to be purposeful, interested, insistent. The traditional and conventional droning over a textbook is as far from this ideal of study as the East is from the West. The former represents an active, hopeful, investigative spirit of quest; the latter a passive, hopeless, aimless spirit of absorption. The former savors of conquest and victory; the latter of non-resistance and defeat.

An eminent historian gives a striking illustration, in the

following episode from his own early teaching, of how a change from the passive to the active attitude in study meant, in the experience of the student concerned, a change from impending and sure defeat to magnificent, even spectacular, victory. The story concerns itself with a boy who was inclined to dislike history, and who brought to its study always the passive and indifferent spirit of lassitude and boredom. As soon as his teacher made this discovery he took steps to bring about a change in the boy's attitude. It chanced at the time that the class was just reliving that absorbing drama of the conquest of Canada by the English, and were studying the capture of the fortress of Quebec. To the boy who manifested some faint stirrings of interest in the circuitous ascent of General Wolfe's men to the Plains of Abraham, the teacher said: "James, I want you to go home to-night and sit down and write just as interesting account as you can of how you helped General Wolfe capture the fortress of Quebec!"

Next morning the boy came to school with a dozen or more closely written sheets under his arm. In his eye there was a new light and a new determination, and in his heart there was an absorbingly new purpose. And with what swelling pride did he hear his teacher read his tale of adventure — *his* version of history — that afternoon. It was a thrilling boyish account of prowess and bravery. Its hero — James, for it was written in the first person — depicted himself in the guise of an orderly to General Wolfe, from whom he begged permission late one night to scout through the thicket and endeavor to find the most likely approach to the fortress. With the warm words of General Wolfe ringing in his ears, and with the fearlessness inspired by the General's hand pressed lightly in farewell and God-speed upon his shoulder, the young hero disappeared into the night. And then through a score of pages he portrayed

the unbelievable experiences that came to him. He surprised and overcame sentries, fell over brambles and rolled down a precipice, but was rewarded at last by finding an undiscovered pathway straight up to the plateau above. After reconnoitering extensively, he made his way stealthily back to the General's tent, was admitted, depicted to the great man, lying on his cot for it was deep in the night, the successful outcome of his venture, and counseled an immediate attack. The army was aroused hastily, and at the right hand of Wolfe the hero led the way up the heights. The fortress was surprised. Montcalm issued forth with his half-clad supporters, and a tremendous battle ensued in which Wolfe fell, mortally wounded. With his dying hand the General placed his bloody sword in the grasp of his intrepid young scout, and hoarsely bade him rally his army and save the day for England. After supreme valor, the English finally prevailed, and at dawn the scout marched triumphantly into the fortress at the head of his retainers — a hero and a conqueror!

In this fascinating episode is exemplified the first fundamental in all study — the arousal of an active, eager, aggressive mental attitude that sweeps the learner along until the goal is reached, whether that goal be an imaginative rendering of an historical episode, or the solution of a practical problem in arithmetic, or the investigation of some process in science or some law in natural history. Difficulty and hardship and perplexity there may well be in the study of these and other topics, but the arousal and maintenance of the insistent and active attitude will go far to minimize these hard places which the passive attitude would exaggerate into such magnitude as to render them insuperable and unscalable.

Stimulation of a thinking attitude. The second hygienic aim of all study ought to be the stimulation of the thinking

attitude. It is not sufficient to read over a printed page in the hope of absorbing at least some of it; it is not enough to listen to an explanation or to observe an experiment in the vague expectation that something of the new truth will be apprehended and remembered. There is no study worthy the name that does not challenge the thoughtful and critical attention and focalize it clearly and analytically upon the problem at hand. One *studies* a page of history or of geography, a situation in arithmetic or in elementary science, not by switching off the vitalizing current of his own thought and experience but rather by switching it on. To study is to investigate actively, to compare fact with fact and experience with experience, to visualize a new situation in terms of related old situations, to contrast and relate and define, to seek positively for hypotheses and general principles, to make inferences and inductions, to search out corroborative data or antagonistic data, to accept and to reject, to cultivate the tentative attitude in the face of conflicting or insecure testimony. To study is to do all of these things, and to do them under all learning conditions whether in one subject or in another.

Too long our schools have been exercising places for the thinking capacity of teachers exclusively, and have neglected to provide the sort of environment and the types of problems that will stimulate the thought life of the pupils. In consequence, teachers have been embarrassed, parents disappointed and chagrined, and the generally critical public moved to satirical comment over the universal inability of the product of the school to do any great amount of real thinking. He has a passably good rote memory, it is true; he can tell you fairly satisfactorily what the books say; he can give accurate accounts of what some one else thinks or has thought; but when it comes to a question of exactly what active and purposeful thinking he has done, and what tangi-

ble results he has personally and independently achieved, there is found pitifully little to brag about. The fault is by no means the learner's; he has studied the conventional assignments in the conventional way; he has satisfied the memoriter requirements of exacting memoriter teachers all along the line. The trouble is that our curriculum is so cut up into unrelated subjects and sections, and there is so much fenced-off ground that must be covered, and so little continuity of subjects that ought to be highly correlated if not indeed made identical and coextensive, that it is discouraging to think far, even if the absurdly overfilled curriculum permitted time and leisure to exercise the learner's ingenuity and originality and his desire to discover and stake out the field of elementary knowledge for himself. What might therefore be made a distinct asset in the cultivating of most excellent mental attitudes becomes unescapably a liability in this regard.

Creation of independence and self-reliance. The third hygienic aim of study should be to make the learner independent and self-reliant. Only the merest modicum of independence and confidence in one's own strength and ability can possibly be developed in a pupil whose task is to commit to memory the principal causes of the Revolutionary War, as given in the textbook, or the chief events in the administration of President Fillmore. It is merely a feat of memory, perfectly possible of achievement by probably two thirds of the class in the allotted time. The only thrill of conquest and realization of mastery that accrue arise from the doubtful consciousness that the contents of thus many pages have been photographed for the time being at least upon one's mind.

This is as nothing compared with the positive and pleasurable mental attitudes that obtain whenever and wherever the learner engages upon a task that challenges the best that

is within him, that requires independent research and the making of independent judgments; that involves the weighing and evaluating of motives and theories and hypotheses; that necessitates the ever-fascinating hunt after causes and influences and explanations; and that all eventuates finally in the drawing of valid conclusions, in the acceptance of rational explanations, in the constructing of plausible theories, in the solution of an interesting problem. Growing out of learning experiences such as these, the hygienic attitudes of self-reliance, of confidence in one's self, and of independence and conscious power develop naturally and incidentally, and these come to exercise a force in the personality of the individual that is incalculably positive and stimulating.

Necessity for a new content of study. Before teachers can proceed far along the lines of training their pupils to study effectively and hygienically, it will be necessary for schoolmen to revise and reshape our elementary curriculum. This must proceed along two lines if we are ever to have a course of study that is rational and economical.

In the first place, it must eliminate from the curriculum the accumulated *débris* of generations, to make room for the elements of our ever-expanding knowledge. There is much in language subjects, in arithmetic, in geography and history, and in art and science that is meaningless in the present age; much that is irrelevant and impractical and even worthless to any age. These things must be removed completely from the subjects in which they are found, and the sooner they can be eliminated the better for all concerned. Already there is much agitation on foot the country over to revise the course of study; it is devoutly to be hoped — though it is hardly probable — that the pruning-hook will be used mercilessly, and that the myriads of dead branches on our tree of elementary knowledge may be lopped off and cleared away.

In the second place, curriculum revisers must come to some satisfactory agreement that will make possible the correlating and integrating of the so-called "branches" of learning to an extent heretofore unthought of save by a handful of educational theorists. The field of human knowledge we have treated in the past as if it were a series of isolated pastures, each separated by an insurmountable wall from all the rest. Following out this conception we have turned the learner out to graze in the history pasture for a few moments each day, after which we have lifted him bodily over the walls and dropped him down in the geography pasture for a few more minutes, and so on from fold to fold until the day was ended. If this variegated diet did not give the student indigestion from the plethora of its bill-of-fare, it certainly did inflict vertigo upon him from the many sudden and violent changes of orientation to which he was subjected in the ordeal. These artificial boundary lines that break up the field of knowledge and confuse and weary the youthful tiller will have to be very substantially reduced in number and height, if not actually leveled to the ground. Only thus may the learner see with unobstructed vision the stretches of the vast terrain and understand its common soil.

After the obsolete and irrelevant have been removed from the various subjects, and after what remains of the old knowledge is supplemented by the new, with all its parts properly correlated, it will then be possible to work out a plan of unified attack upon the newly defined and caparisoned curriculum that will embody all the best principles of studying that we are considering in the present chapter. A large part of the curricular content can be combined and reduced to challenging problems to be investigated; fascinating processes and principles to be observed and noted; topics to be analyzed methodically and logically; research work in the library, the magazines and the periodicals;

interviews and inquiries in offices and places of business; field trips and study; group enterprises and team and individual projects; type problems and situations and conditions, etc. Procedures such as these, carefully planned and outlined and correlated, will arouse interest and ambition in the routine work of the school, and they will also serve to identify school tasks in the mind of the learner with life tasks outside the school, thus making the two worlds comparable and preparing while yet in the smaller for more intelligent and satisfying existence later on in the larger.

A new conception in the mind of the learner important. How tragically unfortunate it is that the pupil characteristically and traditionally looks upon studying as an evil to be avoided or evaded or postponed! Witness, for example, the naturally studious pupil in school — and every child is *naturally* studious until he develops aversion to using his mind — who is looked upon askance by his mates and by them dubbed a “student,” or a “shark,” or a “young prodigy,” or a “phenom” — all of which appellations savor of sarcasm or of contempt. In the name of all that is good, “sharks” are what we want in our schools! They are what we need; they are what parents sacrifice for, and pay their tax money for; they are what we train teachers and equip fine buildings for. “Sharks,” indeed! This smart-Aleck conception of the competent student as being a shark arises out of the unfortunate fact that conventional and traditional aptness in school work has ever been a sort of mechanical process of the in-stamping of a textbook, and no one is more aware of this odious circumstance than the learners themselves. Small wonder that students less able or less willing to set themselves the sordid task of becoming verbal masters of the pages of a book wax satirical over those occasional individuals among them who are thus able and willing to absorb memoriter material.

It is a striking fact that none appreciates more quickly than youth the results of real and serious research that borders on a scientific nature; no one is as eager as youth to enter upon engaging work that requires concentration, self-denial, and perchance even suffering and privation, provided only there is some worthy goal to be aimed at, some tangible results to be achieved; no one has such bright visions of conquest and accomplishment as has youth. But if youth is quick to recognize the importance of worthy purposes and eager to ally itself with those who would strive after them, it is doubly keen in perceiving sham and aimlessness and obscurity, and in recognizing the pettifogging tactics of teachers who would preserve inviolate the conventional curriculum and teach it as it has always been taught. Youth is anxious to attack difficult tasks, but they must be tasks that lead somewhere, not tasks that are aimless and purposeless. Youth is eager to study, but the lesson must be a real and important one, and well worth the time and effort consumed in the process of investigating and mastering it. This is eminently what all studying must be made; when this has been achieved, and only then, will the thought-life challenge and merit the respect of all worthy learners. When this happy transformation has been wrought in our educational procedure it will be deemed a virtue, not a matter for reviling and sarcastic comment, for a youth to apply himself whole-heartedly and unreservedly to the tasks of the schoolroom.

The learner must be taught how to study. The testimony of the laboratory is universal that, while most learners adopt the naïve trial-and-error method of mastering a new skill, this method of learning is likely to be decidedly slow and uneconomical. Yet left to himself the pupil can only learn how to study through trial-and-error. Meredith H., the girl whose finally achieved method of study was

described in the first paragraphs of this chapter, by dint of trial-and-error had hit upon a decidedly uneconomical and inefficient procedure in the mastering of a lesson, as had also McMurry's boy whose memorizing tactics were referred to in the following paragraph. The trouble with trial-and-error learning is that there are formed in connection with it too many irrelevant habits, too many random and untoward procedures, too many superfluous adjustments, too many conditioned reflexes, all of which tend to make the study process both awkward and disagreeable. Nothing could be worse than this outcome, either from the standpoint of teaching or of the mental hygiene of the learner.

No artist develops far without training. He may be never so gifted by nature, but unless skilled teachers can rescue him he is doomed to mediocrity because of the uneconomical methods he develops in his practice, and because of the ragged technique he builds up for himself in his trial-and-error learning. From both of these paralyzing results he might have been saved by a little good teaching in the early years of practice. Studying is in a very real sense likewise an art, with a technique and an economy of procedure comparable with those germane to any other art. Left to himself, the pupil-artist is certain to go just as wrong as the untutored musician or painter. Bungling skill at best, time-wasting habits, uneconomical practices and mediocre results are inevitable. A little persistent teaching would have freed the student from these paralyzing handicaps and hindrances which are likely to become veritable millstones about his neck.

One real difficulty in this connection is the fact that few teachers have themselves ever been taught how to study economically and efficiently. Products of a perennial school system that has opened the flood-gates of knowledge to their youthful patrons without supplying them with chart

or compass to make their way through the deeps, teachers have of necessity evolved their own peculiar methods of study and their own naïve and individual technique. In consequence they are in an extremely poor position to train their own pupils in the way they should go. True, they have the rich background of their own experience, replete with errors and mistakes, which may serve in a negative way to make them capable of teaching proper study methods; but unless they have made some systematic efforts along the line of effective study technique, they will be likely to succeed only in small part in establishing good basal habits of study in their pupils. The time is near at hand, it is devoutly to be hoped, when brief but substantial and highly practical work in proper study methods will comprise an integral part of the training of every young teacher in our colleges and normal institutions.

The prime factors in effective study. In the meanwhile it may serve a worth-while purpose to enumerate here some half-dozen or so of the more important principles that ought to be observed in all study, whether in the lower or in the higher schools, or beyond both — in life situations that must be resolved.

1. A clear objective. It is always a disconcerting revelation to the author when he looks over the notes made on outside readings by his students. Few indeed are they who give evidence of having had any clearly defined goal in view in making the notation other than the vague supposition that whatever was read must be taken down more or less verbatim. It does not appear to matter greatly to them whether they comprehend the points made in the assignment, or even whether they understand what the writer is driving at; their ambition and concern is to copy down as much or as little as their conscience directs of what he says. The point of view has been so long and assiduously in-

grained in them by their school experience that they must show themselves verbalists and literalists in connection with what they study, that they can only read and make outlines with this purpose in mind.

The first factor in effective study requires a definiteness and an exactness precisely the opposite of this. In the mind of the learner there must be a clear and tangible idea as to what result he is to achieve. This entails much thorough preparation on the teacher's part. She must make it plain in making an assignment what the pupils are to do with it, what ideas they are to look for, what methods they are to pursue, what primary facts and what secondary facts they are to distinguish. The making of an assignment, if properly done, requires as much skill and nearly as much time and care as does the actual study of it subsequently. It is therefore important that either a few comprehensive questions based upon the assignment be given the pupils; or that some specific and tangible problem be proposed whose solution will depend upon careful study of the lesson; or else that several leads be suggested; or that a topical outline be supplied to be filled in by the pupils; or that a syllabus be furnished to help them; or that in some other way definite and helpful guidance shall be afforded the class that will tend to focalize their efforts upon the very clear goal that the assignment is aiming at. "The next chapter," or "fifteen more pages to-morrow," or "the next ten examples," or "as far as you can get" are types of assignments that are easily and commonly made, but that are rarely to be recommended. They give the learner no clue, no goal, no incentive; they encourage memoriter methods; they train up verbalists and literalists; and worst of all they are sure to eventuate in such decidedly unhygienic mental attitudes as slothfulness, deceit, and inaccuracy, a willingness to parade knowledge that is really obscure and meaningless, and a

general distaste and lack of interest where there might properly have been enthusiasm and enjoyment.

2. *A bona fide, respectable motive for study.* One would hardly expect a sensible and self-respecting man to do something, day after day and year after year, that he could neither respect nor honor. Yet this is precisely what the pupils in myriads of schoolrooms across the land are doing, and have been doing for generations. We have set them at tasks which, be it said, we sincerely believed to be educative and developmental in the best sense, but which they have never been able to accept as reasonable, valuable, or worthy of their respect and the metal of their steel. If we will but pause to look back in retrospect to our own school days, we shall discover vivid memories of our silent but often pronounced and even bitter contempt for much of the material over which we pored. We did not have any saving faith in a surprisingly large amount of the work we busied ourselves with; we could not consequently respect the fruits of our labors. The objectives may have been clear enough — indeed surprisingly clear and palpable; but the worth-whileness of it all, the respectability of it as the medium for the expression of our interests and ambitions and curiosities, and for the directing of our fancies and the forging of our dreams, the importance of it for our life and happiness and success — these were too apt to be sadly lacking in our estimate of the day's work.

It is essential, in the interest of mental hygiene, that the learner shall feel that the tasks which he is set are really worth while, and that the effort which he puts upon them will be repaid amply by the results achieved. This means that the motives that actuate him must be sound and respectable. It is open to some question whether a student can actually respect work which he does merely because it is assigned, or because he fears the displeasure or censure of

his teacher if he leaves it undone, or because he fears loss of promotion, or because of some other negative or external pressure. Truly motivated work is activated from within; tasks that can be embraced whole-heartedly and prosecuted with enthusiasm arise out of a consciousness of some tangible and highly desirable end to be achieved. Where is the worthy goal and where the worthy motives which obtain in the learner's consciousness when he is directed to master the next dozen examples in cube root, or the circulation of the blood, or the boundaries of France, or the dates of the chief battles in the Civil War, or is assigned for theme writing such subjects as "Spring," "A Walk in the Woods," "What I Saw on the Way to School," or is given a column of twenty difficult spelling words for the day's torture? Tasks such as these, unless motivated in an unusual manner, cannot command the frank and open regard of the learner; cut-and-dried procedures of this order kill free and spontaneous effort and make of study a grind and a bore. Thus do teachers hold down and cramp spirits that ought to be soaring ever higher and more eagerly into the heights.

3. Non-distracting conditions for study. The mind of a child is ordinarily much more quickly distracted than is the mind of an adult. In consequence of this psychological fact, it is obvious that considerable attention needs to be devoted to the problem of maintaining in the study room a reasonable quiet and freedom from distracting influences. One of the most serious obstacles to the maintenance of such an atmosphere is the almost universal necessity in our schools for one section of children to be engaged in a recitation with the teacher while another section is studying in another part of the room. Because it has been found of great value to section a class on the basis of its ability, and because it has not been deemed possible or feasible to multiply the number of rooms and of teachers to care for the

increased number of sections or groups, there has seemed to be no way of avoiding this unpedagogic situation. Whether we shall find a way sometime in the distant future to solve this problem or not is rather doubtful. Every one knows, however, how disagreeable it is to apply one's mind, for example in reading or thinking or study, when some one else in the room is talking. Grown-ups feel that they must have quiet and peace while they are engaged upon intellectual tasks; yet we permit and expect children to apply themselves in the midst of all manner of distracting influences.

Anticipating the time when disturbing factors may possibly be banished from the classroom, there are several things that every teacher may and should do to reduce to a minimum the more common sources of annoyance, in the interest of discouraging in her pupils the formation of habits of indolence and scattered attention that thrive wherever there are diversion and distraction. She may make assignments very definite, so that there will be no need for asking or answering questions once the work has gotten under way; she may have all materials ready beforehand, so that there will be no interruption in the progress and continuity of a lesson; she may cultivate a quiet and pleasing voice and encourage a similar ideal in her children, in order that there may be no unpleasant or jarring speech to annoy those in the room who are engaged upon other tasks; she may move quietly about the room, and train her pupils to do likewise; she may discourage all needless interruptions, both from within and from without; she may plan for such necessarily distracting processes as erasing blackboards, placing written work upon them, arranging displays, and the like, before school, at recess time, or in the interim between lessons.

In the interest also of avoiding disturbing influences, the

teacher must cultivate the consciousness and viewpoint of the physical hygienist. So far as the personal healthfulness and well-being of her children are concerned, it is important always that she command the active coöperation of the school nurse and the school physician. Nothing in the external environment is more distracting than such internal conditions as defective or poorly functioning sense organs; diseased tonsils, adenoids, and teeth; malnutrition, headache, and the like; and the teacher should be constantly on the alert to perceive the symptoms of these common disorders and refer them to the nurse or physician for diagnosis and possible home or clinical correction.

Similarly, the teacher may guard against a continual source of possible distraction by developing a consciousness for physical comfort of the schoolroom; she should be quick to perceive a rising temperature and an excessive humidity in the air, and train herself to watch these important factors constantly. Sometimes janitors themselves have next to no comprehension of what a properly conditioned schoolroom environment should be, and the teacher must make and enforce the regulations of temperature and ventilation for herself. So also in the matter of proper lighting, curtaining, and screening, and of comfortable and hygienic seating, the teacher should be ever on the alert; for such annoyances as those arising from neglected glare, excessive or inferior illumination, the presence of humming flies and other insects, unsuitably adjusted seats and desks, etc., while not always consciously perceived, are among the commonly found agents of distraction and confusion in the schoolroom.

4. A minimum of emphasis on recitation. One of the most glaringly mistaken ideas that a teacher can have is the conception of the recitation as a means of providing the setting for the learner to *re-cite* what the textbook has cited.

Yet this is the traditional and still unfortunately all too prevalent notion concerning the supposed function of the recitation. It has always been the belief of the rank and file of teachers that the prime function of the school is to translate what the sacred printed page bears upon it to the brain cells of the learners, and to insure by question and answer, and occasional inquisitional reviews and examinations, that a substantial amount has been thus translated and retained. Proceeding from this conception, teachers have been themselves chiefly responsible for the ideas about study and learning that youth has concocted for himself. Since the teacher sets exclusive and exhaustive store by the textbook, the learner's cue becomes necessarily the words and precepts contained therein, and youth soon learns that some semblance of a smattering familiarity with the expressed ideas of the book is what is expected and required of him.

At recitation time the learner, naturally enough, assumes the conventional attitude of racking his benumbed and enfeebled brain to stir up and perchance smoke out the revealed preachment of the book. The fundamental purpose of the recitation is interpreted in his mind as a test of whether or not he has properly absorbed the sacred lines! In consequence, he answers the questions asked in a voice barely loud enough for the teacher to hear, with his eyes fixed questioningly upon her face seeking for signs of approval, and without regard for the rest of the pupils in the room. Instead of recognizing the recitation period as a time when free discussion, the give and take of pupil opinion and experience, and the confident assertion of one's own feelings and knowledge are to be striven after, the student comes to think of it as a series of dialogues or questions and answers exchanged between each pupil, in order, and the teacher. Teachers have themselves so commonly the same conception

of the recitation that they are likely to accept from a pupil almost any poorly worded or half-inarticulate statement that bears some slight semblance to the facts, so gratified are they to observe any discernible proofs of mental effort in their pupils. Those children who are not being called upon feel no urge to participate until the teacher's questions fall upon them individually; then they are galvanized into life while those who have finished reciting return to their former condition of quiescence and torpor. Only a few picked learners will feel interest or compulsion enough to continue alert to all that others are contributing throughout the entire period, and they are rewarded by being called upon again and again.

5. A maximum of emphasis upon thoughtful reaction to material studied. All this is exceedingly unfortunate and unpedagogic from the standpoint not only of mental hygiene, but of valuable achievement as well. From conceiving the recitation period as a series of private and personal dialogues between a pupil and his teacher, the learner must be brought to regard it as a situation wherein a common objective and task is being engaged upon actively by all, teacher and pupils alike; wherein there occurs a free, spontaneous, and spirited exchange of ideas and opinions; and wherein every individual in the class feels not merely the duty but the urge and ambition to maintain consistently the thoughtful and the intellectual attitude toward the problem at hand. Instead of regarding recitations as sparring encounters between the learner and the teacher, the student must make the fascinating and refreshing discovery that recitations are pleasant and stimulating tournaments of the intellect, in which every participant feels his very mind expanding, and reaching out, and grasping and assimilating, and in which there is maintained a sympathetic and coöperative attitude on the part of every individual.

Before students can possibly achieve such a lofty and stimulating conception of the recitation, it will be necessary for teachers to revise extensively their own ideas of it and of the schoolroom objectives in study. In place of the conventional and time-honored recitation, supervised study and the study-recitation will have to be introduced. In place of the formal question-and-answer method, the introduction of research work under the reasonably direct supervision of the teacher must be provided. In place of the half-hearted interrogatory analysis of a few pages that have been assigned previously for study, the teacher will find it necessary to arrange the work of a class into individual or group problems which will invite the interest and curiosity of her pupils, and then to turn them loose upon source books and maps and models to find solutions and explanations.

The ideal study room must be a room in which the children are engaged upon the solution of problems arising out of real situations; in which the teacher is an omnipresent but never needlessly obtruding and disconcerting helper; in which something of the real spirit of research is in constant evidence; in which careful plans of attack and investigation are developed in connection with every lesson; and in which clear objectives and goals are always imminent or beckoning to encourage and even to entice the learner. Not the memoriter reciting of half-memorized pages from a book, but rather the active digesting of an open book; not aimless and obscure absorption of meaningless paragraphs, but rather purposive and determined analysis of leading topics and suggestions of the teacher that will illumine and transform the dead paragraphs into living flesh and blood; not indifferent and distasteful home study, but rather actively pleasant and directed classroom study that yields incalculably higher returns in real achievement as well as in positive and agreeable mental attitudes; not passive

memorizing, but rather active analysis, reasoning, weighing, searching, inquiring, and eventual finding that exhilarates — these are the ideals that must be incorporated by every teacher into the work of the classroom; these are the objectives that give life to study and that give it abundantly and unflinching.

6. A growing consciousness of power in the learner. Last but by no means least in importance as a factor in effective study should be an ever-deepening realization in the learner's mind that he is developing new strength and new power. There is small impetus to continued activity for the individual in any line of effort who is aware of no accumulating skill or progress in his work. Stimulated by no loftier conception of study than by the traditional one of passive and verbal absorption of a textbook, without clear objectives and worthy motives, it is difficult to understand how there could possibly be for any, save those learners possessed of unusual ability or interest, any striking consciousness of increasing skill and power in study. For the learner who is led to conceive the process in its true light, however, there should be ample evidence accumulating, week by week and month by month, of an expanding facility and strength. To this end, it should be the ambition of the teacher to encourage, cleverly but unobtrusively, the conviction in the mind of each individual student that he has valid opinions and tested experiences of his own, and that these are always of value in the common discussion and in the coöperative search after knowledge. In this connection it is important that the teacher shall strive to encourage even the least forward among her pupils to interject their opinions and feelings and experiences into the discussions, and to state them convincingly and in a manner to demand the respectful consideration of others. The natural repression which the coöperative-study environment places upon

the weaker and more backward students must be so far as possible removed, and they must be led firmly but gently and increasingly to assert themselves, and not be suffered to sit idly by and contribute little or nothing to the common task.

By virtue of this new emphasis upon active participation in the study-recitation on the part of each individual, of the constant attempt to relate the life experience of the pupil to the material being studied, of the adoption of the investigative and the research point of view in connection with all study, of insistence upon the value and worth of the viewpoints and ideas of all the pupils, of the maintenance of a strict atmosphere of quest, of search, of discovery, and of the stimulating of independent judgment and reaction — by virtue of these and similar ideals in the conduct of the study-recitation, pupils can hardly fail to grow in intellectual stature and to become increasingly conscious of new strength and resourcefulness.

TOPICS FOR SPECIAL STUDY AND REPORT

1. Have you ever had in your school experience any actual training in economical methods of study? If so, was the instruction definite and consistent, or was it highly occasional and incidental?
2. Make a critical estimate of your present ability to study and master an assigned lesson. Do you tend naturally to memorize the material? Or do you habitually analyze and endeavor to react thoughtfully and critically to it? How efficient do you feel yourself to be?
3. As you retrospect over the line of teachers under whom you have sat, do some of them stand out vividly in memory as teachers who were themselves slaves to textbooks and who impressed their pupils into a like servitude? Do you recall some who manumitted you and gave you visions of a higher form and ideal of study? From which type and from what individuals did you gain most?
4. State in a written paragraph your present conception of the goal and character of all proper study. Has your analysis of the present chapter contributed to this conception (1) by confirming or (2) by modifying your ideals as developed heretofore? Explain.
5. Has it been your observation that most students have none too much

regard for those of their number who are inclined to be scholastic and bookish? How do you account for this attitude?

6. Why should mental hygiene concern itself with the problem of training students to practice proper and economical habits and ideals of study? Explain.
7. In general, how clear and definite do you feel the goals and objectives in the various elementary and high-school subjects which you pursued were made to you? Do you recall still several that always seemed extremely dubious and obscure? How might the teachers of the subject have prevented the development of this feeling?
8. What experience — either as a student or as a teacher — have you had with supervised study? Study-recitations? Unsupervised study? Home study? What are the chief points in favor of the two first? By what age or grade might the two last be safely permitted?
9. Read and report in class Hall-Quest's suggestions for introducing the study-recitation into an upper grade.
10. Plan to supplement the material of the present chapter as soon as possible by reading the first few chapters at least of McMurry's *How to Study and Teaching How to Study*. You will find this book of very great practical value and help.

CHAPTER XIII

HOME SOURCES OF CONFLICT

Avoidance of conflict the great aim of mental hygiene. Throughout this volume we have been thinking of mental health as integration of the personality — as harmonious adjustment of the individual to his life problems as they arise from day to day. Wherever one finds on the streets of men a human being who reacts calmly and rationally and decisively to the situations that arise to confront him, there he may observe the sane and balanced conduct of an integrated personality. Wherever, on the other hand, one finds a man who is vacillating, undecided, and inhibited by fears and other negative traits, there he may observe an individual at best only half adjusted to life, and unable to meet its problems with calm and equanimity.

The great aim of mental hygiene is, as we have so often repeated in the foregoing pages, to forestall if possible, but otherwise to remove, the disintegrating and inharmonious forces that are preventing a man from envisaging life and its activities rationally and hopefully. In other words, what the mental hygienist is anxious to bring about in human beings everywhere is a condition of harmonious adjustment that will make it unlikely that mental conflict shall wreak havoc in the lives of men and women and of children and youth. The mental hygienist would banish beyond the seven seas the fears and the anxieties and the inferiorities and the inhibitions and all the other disturbing influences that sap and enervate and constrict; he would prevent or uproot these, and in the soil where they flourished he would cultivate tempered confidence and self-reliance and

the will to achieve. In very truth he would so scatter his transforming seeds that instead of the thorn might come up the fig tree, and instead of the briar might come up the sycamore.

The home as a frequent source of conflict. It is a very disagreeable fact — but nevertheless a fact — that all too often the home itself is the factor directly responsible for the arousal and growth of conflict and maladjustment in a child. This is a circumstance well known to every psychiatrist, and to every clinician and child-guidance worker in the land. The problem child is indeed a problem; yet he usually is no more of a problem than is his mother, or his father, or both of them together. Possibly we should cease talking about problem children, and begin talking about problem parents. No doubt we would have done so long ago but for the fact that the adult “problem” does not have to be handled directly by a teacher and within a school setting, being a step removed from these agencies, but the problem child receives the full focus of attention and opprobrium that should have been directed better upon the parent himself.

Only in extreme cases, of course, do the real “problem parents” come to light. The large majority of problem children are not sufficiently maladjusted to warrant any very intimate check-up of the home influence, even if society were equipped with the machinery and the personnel to conduct such serious study of individual cases. When, however, the problem child becomes actually or potentially a delinquent and falls within the sphere of influence of guidance, or probational, or placement, or corrective agencies, then an intensive survey of the home atmosphere is ordinarily deemed to be indispensable to a satisfactory analysis and disposition of the case. Wherever such careful studies have been made, the results have been overwhelmingly confirmatory of the very frequent causative influence exerted by the

home and the parents over the unseemly behavior of the child. Space will permit us to refer but briefly to two or three recent statistical surveys of delinquent children in the mass, which testify abundantly to this important fact.

Surveys of delinquent children. Five hundred school children, all considered problems at home or at school or both, have been recently studied¹ in the child-guidance clinics conducted by the National Committee for Mental Hygiene as a part of the Commonwealth Fund Program for the Prevention of Delinquency. Examination of these children was initiated by parents, teachers, physicians, social-service agencies, judges of juvenile courts, and the like. Nearly three quarters of them (71.6 per cent) were referred because of direct conduct disorders and personality difficulties. The causative factor in 55.6 per cent of the cases tabulated was put down definitely by the workers as "bad home conditions"; 46 per cent of the children manifested "poor heredity"; 33.6 per cent were in poor physical condition; 11.2 per cent were "irregular" in school attendance; 10.8 per cent were subject to "emotional conflicts"; 8.4 per cent had "no proper recreation"; 5.6 per cent were victims of "over-indulgence," all of which factors are obviously the outgrowth of the home setting.

In Cincinnati, Dr. Anderson reviewed² the findings of a mental hygiene survey made of the juvenile court cases of that city, and concluded that:

. . . Serious emotional conflicts, mental maladjustments, emotional complexes, unhealthy mental imagery, various physical disorders, bad home influences, were constant factors. Sixty per cent of these children had parents who had already been problems to the

¹ Blanchard and Paynter: "The Problem Child," in *Mental Hygiene*, vol. VIII, pp. 26 ff. (January, 1924.)

² Anderson, V. V.: *The Psychiatric Clinic in the Treatment of Conduct Disorders of Children, etc.* New York, National Committee for Mental Hygiene, 1923.

various organizations of Cincinnati. . . . Seventy per cent came from homes in which parental conditions and parental control received the very lowest possible ratings; desertion on the part of the father or mother, bad moral influences exerted by one or both parents, and total lack of supervision of the child, were marked in these cases. Of the girl delinquents who passed through this court ninety per cent came from such homes. . . . We were impressed by the fact that the most important influences in the lives of these children were not to be found in the material conditions of the home — its sanitation and so forth — but in the personalities with which the children daily come in contact, in the moral, intellectual, and religious atmosphere of the home, in character training, parental control, and supervision. These factors, we believe, have much to do with the formation of character and the development of personality, and here is the crux of the problem so far as the delinquent child is concerned. We may regard these personality handicaps as the covert mechanism that, under certain stimuli, issue later into covert behavior.

There can be no question but that if the parents exert such powerful influence over children of the extreme problem type they must also be the source of much conflict and disharmony in the less extreme but still problem children. Mental hygiene is tremendously interested in preventing delinquency and in forestalling the development of character and personality traits that eventuate in problem children. The point of attack must therefore be the home — the parent himself, and the process must be largely an educational one. Since also the identity of such homes is not known ordinarily until their influence begins to betray them in problem children issuing from their doors, the treatment will have to be rather corrective than preventive, unfortunate though that undeniably is.

Common home sources of maladjustment and conflict. In the ensuing pages of this chapter we shall concern ourselves with an inquiry into some of the chief home and parental influences which are bound to make for conflict and

ill-adjustment in the child and which, undiscovered and unchecked, lead often and naturally into delinquency.

1. Quarreling and lack of harmony in the home. The home divided against itself may not fall immediately, nor even eventually; but it becomes inevitably, as Sybil Foster remarks,¹ "the battle ground on which many a child's future is sacrificed." Sensitive children are frequently little less than paralyzed with fear, and become nervous and unhappy in an environment in which the parents quarrel frequently and loudly. One of the writer's own cases is that of a nervous and naturally emotional woman whose recollections of earlier childhood are tinged with the memories of evenings when she crept off to bed to escape the quarreling and harsh voices of her father and mother, and there drew the covers tightly about her ears to shut out the fearsome sounds. Less sensitive, more obstreperous, and self-asserting children may be prompted by such family discord to cultivate in themselves querulous and unpleasantly assertive traits that are the source of no end of torment to other children and annoyance and trouble to teachers. For all types of children the inharmonious home becomes uncongenial and unattractive, the call of the street and the gang and the cheap amusement halls grows more insistent, and in place of the good example and kindly training which a fine home should supply, children seek surcease from discord and find a vicarious happiness amid surroundings that were never designed to foster the best principles nor the best habits and ideals. There is no finer influence for good than a home where habitual respect and forbearance are kept ever in the foreground, and children who miss such a boon are certain to become, on the one hand, nervous, unhappy, morose, and fearful; or, on the other, rebellious, querulous, disorderly, indifferent to the finer virtues, and delinquent or quasi-delinquent.

¹ In *Mental Hygiene*, vol. ix, p. 736 (October, 1925).

In this category we must include also homes that have been broken up because of divorce or separation of parents. Ordinarily a divorce is preceded by a long series of incompatibilities, discordant wrangling, and open sarcasm and imputation, and this is only less baneful in its reaction upon the children than is the actual separation that ensues. The whole wretched business is likely to be cumulative in its effect, and drive them from unpleasantness to fear, from fear to terror, from terror to shame and a consciousness of disgrace, and from these to all manner of escape-mechanisms whereby they may avoid the reminders of the unhappy estate into which their family has fallen.

The writer has met with not a few cases in which children have hit upon most unfortunate and unhygienic adjustments to the divorced-parent situation, among the worst of these being an antipathy for school, where the family disgrace is likely to be thrown repeatedly into their faces; the genesis of puzzling physiological symptoms of such a nature as to render normal intercourse with other children wholly out of the question, temporarily at least; the development of paralyzing inhibitions and reflexes that warp and blunt the personality; and the formation of attitudes of mind that enshadow and darken and embitter the entire outlook upon life. With our divorce problem becoming every year more serious, it looks as though the cause of mental hygiene must suffer seriously in those families in which this growing evil finds welcome.¹

2. Disagreement among relatives over discipline and regimen. It is of prime importance in the environment in which a child spends his earliest years that there shall be at

¹ There is of course no gainsaying the fact that judicious divorce frequently opens the way for more healthful attitudes and outlooks to be formed by every one concerned, but it is apparent that such is hardly the case in the great majority of separations that occur.

least external uniformity and harmony of judgment and control in matters affecting the welfare of the child. Wherever there is observed to be disagreement over some question of dietary or conduct or discipline, any child blessed with ordinary powers of discernment and social perception is quick to note the friction, calculate the possibilities in the situation, and then make whatever profit he can by capitalizing it and playing off one individual against another. Children are sharp and clever bargainers, and frequently are able to win their own way through a clever attention to the exigencies of a situation.

A clinic case ¹ will prove interesting and illuminating.

A little girl of five has learned skillfully to play her meddlesome, oversolicitous great-aunt against her father and step mother, to her own immediate advantage. The congested section of the city in which she lives has been kept in turmoil for months over the family rows. While living at home with father and stepmother who are harsh and indulgent alternately, if things do not suit her, the child runs to her great-aunt near by with lurid tales of the abuse she has undergone at home. When tired of living with her aunt, she returns home, again carrying tales. What one relative will not allow the other is sure to permit. The neighbors add fuel to the fire by their gossip. Frequently there are actual "fist fights." Steeped in this atmosphere of strife, it is little wonder that this youngster turned up at clinic with her mental life partially disintegrated. She was unable to eat and sleep properly and was incorrigible and domineering to an exaggerated degree, frequently giving way to paroxysms of temper. On her first visit at the clinic she became so enraged that she screamed, stamped, and finally stripped off her clothes and tossed them about the room. When she saw that this netted her nothing, she quietly picked up her things and put them on again, although still looking sullen and defiant.

It is plain that home conditions such as described above

¹ "Personality Deviations and the Home"; in *Mental Hygiene*, vol. ix, pp. 739-40 (October, 1925).

are extremely provocative of bad mental hygiene in the children concerned. Serving thus early in life an apprenticeship to the cause of shady bargain-driving and unconventional purchase of privilege, always with the selfish end in view of securing one's own way and freedom to do as one chooses, it is hard to understand how a child could grow up to be otherwise than self-centered and mean, ever on the alert for some chance of personal aggrandizement at the expense of others, always ready to stoop to deceit or misrepresentation to achieve his own pleasure, keeping constantly an eye out for the possibility of exploiting or deceiving some one else. This is certainly an unfortunate harvest, yet it is an almost inevitable one from such seeds of disagreement, strife, and meddlesomeness as are sown in families where every one covets the privilege of bringing up the child in the way he should go.

Quite frequently doting and old-fashioned grandmothers are responsible for considerable friction in the home, and no end of worryment and vexation in the parents. Accustomed to the way of bringing up children in vogue two generations ago, gratified by the vaunted success that attended their efforts in bringing up their own children, skeptical or openly scornful of newer methods and ideals of child care and training, these opinionated and narrow-minded grandparents consider themselves often to be self-constituted authorities in all matters pertaining to their grandchildren, and the parents are all but helpless in the situation. In consequence, the children, sensing a strong undercurrent of disagreement among the elders, find means of advancing their own interests at the expense of course of wise mental hygiene.

Too many parents have themselves decidedly antiquated ideas of wholesome discipline. The products of an old-fashioned educational background, steeped often in narrow

religious concepts, unappreciative of the modern social and recreational needs of boys and girls, and unresponsive to the world-wide, self-emancipative efforts of youth, great numbers of ultra-conservative parents create for themselves problems in the control and training of their children that they are likely to find baffling and knotty indeed. Parents of this type are ordinarily extremely apprehensive of the contaminating influence of modern social contacts upon their children, and tend to repress their social natures and discourage or prohibit normal free expression along these lines. Children are consequently either openly rebellious and nonconforming, or else yield unprotestingly to the parental will and develop retiring and morbidly secretive natures that fit them poorly for normal social intercourse when they have grown up. The author has met numberless cases of maladjusted children whose chief and often whose only trouble could be diagnosed as excessive repression due to stubbornly old-fashioned ideas of child training in vogue in their homes.

3. Oversolicitous parents. Here is a parent who anxiously scans the morning face of her child for signs of illness or symptoms of some dread disease; here is one who seizes upon the slightest bump or bruise sustained in play as ground for incessant kissing and petting and soothing; here is another who runs to the doorway a thousand times in an afternoon to chirp at her small son playing safely enough in the back yard, and satisfy herself that he is not being harmed; still other parents make their own lives unhappy and the children overdependent and timid by useless display of worry and fear, the continually voiced expectation of accident or injury, and by senseless protestations of anxiety and solicitude.

The baneful effects of such parental attitudes as these upon the child victim are inevitable. Accustomed to the

pleasant beguilings of an overanxious mother, to her all-en-shrouding care and protection, and to her overwhelming omnipresence, the child becomes helplessly dependent upon her, and by the same token less and less self-assertive and able to take care of himself. Growing up in such a shielded and sheltered environment is a poor fit for making salutary adjustments to the demands of a world wherein one must think and act and care largely for himself. The hiatus between the prolonged infantile condition of parental solicitude and the grown-up estate of self-reliance and self-protection and self-assertion which every normal individual must enter, is all but unbridgeable by the poor unfortunate victim of a morbidly anxious and solicitous parent. The world has altogether too many people in it who have been thus unsuited for rational and aggressive participation in its grown-up affairs by a mother or a father whose single purpose was to defend them from everything that was difficult and distasteful, and who surrounded them from their earliest days with a selfish solicitude that encouraged negative instead of positive traits in their personalities.

4. *Prolonged infancy.* Related closely to the over-anxious parent is the parent who cannot reconcile himself to the inevitable circumstance that the child whom he idolizes is surely growing up, and will some day all too soon feel a hunger and a thirst after a wider circle and perchance a new circle in which to seek satisfaction and self-expression. Fleeing inwardly from the contemplation of this sure but dread reality, the parent pushes the unpleasant ideas deliberately and persistently from his mind and replaces them with the more pleasant realities of the present. Baby habits and infantile ways of reacting are encouraged and rewarded; normal faint graspings after the outside world beyond the hearthstone are discouraged; the unsurpassable completeness and perfection of the present family circle are

played up frequently and vigorously; the natural impulses of the boy to seek, as early as possible, some productive form of gaining a livelihood are dismissed, and the self-sufficiency of the family is urged in counteraction; the cravings of the daughter for companionship and good times are submerged in the alleged ideal comradeship of the home circle.

As the children in such homes grow older and maturer, and the mating urge begins to make itself felt, there is consternation and even rebuking and censure. The mere contemplation of stepping from the circle and establishing another independent one is lamented, and often openly discouraged. This resentment at the intrusion of another into the affections of a son or daughter is a trait as old as the race itself, and one which fathers and mothers of the selfish type we are describing are unable to conceal and subvert. The mating impulse, however, is just as old and just as strong, and since it is indispensable to racial survival the other must yield to it as gracefully as possible. The unselfish and rational parent adjusts fairly readily to the new situation, but the selfish parent who would perpetuate what cannot normally be perpetuated resents and rebels more or less bitterly.

End results of prolonging dependence. The end results of this egoistic attempt to maintain the integrity of the family circle by prolonging the period of infancy and dependence beyond its normal limits are as unfortunate as they are unescapable. The youth brought up in such a setting looks out upon a world as through a glass darkly, and sees a panorama in which everything human appears in a false and distorted perspective. He is likely to feel a distinct lack of sympathy for the problems that face others; he is critical and skeptical of all that differs from his own little world of experience and ideals; he is self-centered and tends to be self-satisfied; he is unsocial and feels little in common

with others born under a different family tree, only those of the blood being worthy of his interest; he is in danger of becoming a hermit and a cynic; he is a family worshiper who looks backward rather than forward. In addition to possessing these general maladjustments, the victim of prolonged infancy lacks confidence in himself, shuns competitive contacts with others, is strangely uncertain of his own powers though inclined to be satisfied with them, and avoids the natural and normal social and personal relationships of life.

It must be pointed out in this connection, however, that there would be far more grown-up infants than there are in the world were it not for the comforting circumstance that myriads of youth, brought up in the selfish manner we have indicated above, have the courage and the conviction to break with the past before irreparable damage has been done and school themselves to envisage life rationally and sensibly. For such strong-minded individuals, while the new adjustment is frequently a hard one to make, the possibilities of complete emancipation and the forging of new and proper bonds are happily completely achievable.

How the prolongation of the period of a child's complete dependence upon his parents may work great harm to him is illustrated by the following clinic case.¹

... Because of the overzealous care of her parents this child has remained dependent and clings to the privileges of babyhood. In order to make the child sleep, the mother lies down with her; to make her eat, she feeds her. Lest the child tire herself, the mother drags her to school on a sled in snowy weather and in wet weather carries her across the puddles. Each difficulty or rough place this child should be learning to meet is smoothed over or side-stepped. If things do not go her way, she screams or resorts to vomiting as a means to obtain her ends. She has had no playmates, as she has

¹ Foster, Sybil: "Personality Deviations and their Relations to the Home"; in *Mental Hygiene*, vol. ix, p. 737.

never been allowed out with other children because her parents feared accidents in the streets or contamination by undesirable neighbors. She is the only living one of five children, the others having died at birth. This has caused the centering of the parents' affection and anxiety on her and is preventing her from making a good adjustment to life.

5. Favoritism. Not infrequently one finds a home in which one child enjoys more privileges, or receives more favors, or in some other way impresses the other children that he is more loved than they. It may be that an overfond father makes him a coat of many colors that arouses the envy or jealousy of the less fortunate siblings, and prompts them if not to sell him to the Ishmaelites at least to dislike him and to plot actively against his continued place in the sun. More likely the favorite child is the first-born, or like Joseph the last-born, or one who has been sickly or who has some deformity or other handicap that commingles pity with love in the attitude of the parent. In consequence, the favored child is watched over more carefully, worried over more consciously, and in general fussed over more devotedly than are the other children. The effects of such favoritism upon the other siblings are decidedly unfortunate. They shun and avoid the envied one, or else make him the object of many an ungentle and hateful plot; they cultivate an open dislike for him that may attach itself vicariously to the offending parent also; they become extremely jealous and irritable at home, and sullen and resentful at school and on the playground.

The more sensitive among the children in a home where there is a specially favored child may become morbidly introspective. They may seek and discover weaknesses and unlovely traits in themselves that the envied brother or sister does not possess, and then by a strange mental process develop a decided dislike for those egregious traits

which they find lacking in themselves and conspicuous in the more favored sibling. Or, following another tack, they may develop hopelessly the inferiority complex, and magnify out of all sensible proportion their own weaknesses and shortcomings. Whatever the line of argument the jealous and envious sibling elaborates for himself, the extremely unfortunate thing is that he is constantly making invidious and morbid comparisons among his brethren, and passes his days in unhappiness and even in misery.

The following case illustrates a family setting wherein favoritism was by way of wreaking havoc with the unfavored child, and causing in him all manner of conflict and ill-adjustment.

Henry C., ten years old and in the fourth grade, was taken to the clinic on the advice of the principal of his school, who complained of his poor standing, his lack of self-control when mixing socially with other children, and his notorious irritability and quarrelsomeness. At times he was reported as being very sullen and resentful of all discipline in the schoolroom, and occasionally even defiant of the teacher's authority. Examination at the clinic revealed in the boy no serious physiological condition that could be interpreted as the basis for such conduct. He was found to be of average intelligence, with an I.Q. of about 102. It was evident even before the social worker's report was consulted that Henry was the victim of some decidedly strong mental conflict that was making him morose and anti-social to an alarming degree. Study of the home situation was therefore deemed to hold the key to the solution of the child's difficulties. It was discovered that Henry had a younger brother, Willie, eight years of age, whose disposition was quite the opposite of the older boy's. Willie got along beautifully with everybody, enjoyed no end of popularity among the playmates of the neighborhood, and was withal the undisguised pet of his mother. Henry resented the decided popularity and the place of leadership enjoyed by Willie among the neighborhood children, some of them actually older than Henry himself. It was plain that Henry secretly aspired to that leadership for himself, but because of his many unpleasant and even vicious traits the other children

were inclined to avoid him. The most galling factor in the situation, however, was the unequal affection bestowed by the mother upon Willie. The sun of her love shone warmly upon this younger boy, and only the mildest and most slanting rays fell beyond Willie upon Henry. When the situation was explained to her she admitted a greater attachment for Willie, he having been involved in a serious accident when a wee babe, from which only the most devoted care and nursing on her part saved his life and incidentally endeared him the more to his half-frantic mother. As soon as she could be made to understand the seriousness of the effect of such favoritism upon the less fortunate older boy, the mother was ready and eager to make whatever amends she could for her errors, and the way was prepared for a new deal for Henry.

6. Too much lime-light. There are few things that a young child enjoys and covets more than he does to be kept fairly constantly in the forefront of the home circle. It is as sweet as the sunlight for a boy to realize that the attention of the family is being focused not too critically or reprov-ingly upon his actions and behavior, and that he is occupying a place of prominence in their thoughts and conversation quite disproportionate with his years and importance. In many a home this situation gets started in the first years of the baby's life. Whenever the child cries or frets the parent hurries to him and endeavors frantically to divert and quiet him; if he is fretful or restive at night time, her wide and frightened eyes peer down solicitously upon him; if he coughs or sneezes, anxious fondling and questioning ensue. As he grows older his wishes are yielded to deferentially and without question; his opinions and preferences are made the starting point for all family discussions and decisions; he is paraded and praised and exploited before all comers as the "best child," or the "loveliest child," or the "cutest" and "smartest child" in all the world. Is a juvenile needed to perform publicly, it is invariably to such a child that everybody at once turns, and the most gratifying and honeyed words of praise are heaped upon his efforts from all sides.

From the standpoint of mental hygiene, the effects of all this unfortunate prominence thrust upon a child are exceedingly unfortunate. Brought up from the earliest months in a home where he is made the bright center about which everything else turns, the child develops a wholly wrong notion of his own proper place. Dependent upon the parent for comforting when he is fussy, for fondling when he is fretful, for soothing when he is wakeful, he manufactures a whole series of conditioned reflexes that become stronger from year to year, and that must be broken up sooner or later. Accustomed to voice his opinion in all matters, indeed his preferences and wishes consulted at every turn, he develops a domineering attitude that cannot readily be set aside. Yielded to and deferred to on every occasion, he becomes finicky, testy, and overbearing. His accomplishments or his rare qualities or his talents paraded boastfully before others, he grows conceited, selfish, arrogant, and comes shortly to consider himself as different from the ordinary run of children. All of these attitudes of mind are highly undesirable and unhealthful, tending as they do to make the child adjust poorly to the normal estate of childhood that is characterized by nothing more surely than by the absence of self-consciousness and a general freedom from the evils of studied pride and vanity.

In this connection must be included the child whose conduct or characteristics are made the constant subject of remarks that tend to single him out and stamp him as different from other children — whether better or worse. It is a situation that an ordinary boy enjoys inordinately to be referred to as one who has “a very poor stomach,” or who “just despises milk to drink,” or is “a very nervous child,” or who “finds it hard to go right to sleep,” or who “has a perfectly awful temper,” or who “always insists on having his own way,” or who is “the noisiest child in the world,” or

who "worries his mother to death because he is so naughty," or who "nearly drives her to distraction" over this, that, or some other quality which he possesses. Traits like these, referred to openly in the presence of the child concerned and in that long-suffering and approving-while-disapproving manner so commonly assumed by a parent who either feels herself incompetent to cope with the difficulty, or else interprets it as incidental to childhood and shortly to be outgrown and therefore demanding no particular discipline, thrive in the child because they bring him attention and keep him pleasantly in the lime-light of attention and conversation.

The following clinic case¹ is a typical instance of such a home situation.

He bears the reputation of being willfully destructive and disobedient. At the age of three and a half, he rides rough-shod over all the members of his family and destroys anything to which he happens to take a fancy. Upon one occasion he played quietly upon the kitchen floor until pointed out to the visitor by his mother with the remark: "He's a devil. We can't do a thing with him." From that moment he fully lived up to the rôle expected of him. He turned on the gas burners, broke the glass castors on the piano stool, smashed to bits a large, new doll belonging to his sister, and finally threw a wooden packing box at the visitor. During this scene the mother lay on a couch complaining of a headache and saying weakly, "Oh, isn't he awful? He ruins everything and I can't stop him." Discipline in this home is a most casual matter. One moment the child is scolded and threatened for his conduct and the next moment it is the object of laughter. Repeatedly he hears his pranks talked over and retailed with an air of pride. He appears to care little for approval or disapproval and takes delight in the act of destruction and the excitement it creates; with an eye on the audience and a joyful grin, he demolishes whatever he can lay his hands on. He finds it quite satisfying to be "the despair of the family."

¹ Foster, Sybil: "Personality Deviations and their Relation to the Home"; in *Mental Hygiene*, vol. ix, pp. 740-41.

7. Lack of habit-training in simple matters. Another very common source of conflict and maladjustment growing out of an unfortunate home influence is the failure of parents to see to it that the child forms early and completely a few fundamental habits of conduct and self-control. One of the most common factors in all clinical work with so-called problem children is the general absence of the most common simple habits of regimen and self-discipline. Here, for example, is a boy of twelve who is nervous, irritable, and failing persistently in his school work. Investigation of the home situation reveals the fact that the boy has no habitual bedtime hour, but is permitted to stay up half the night with his radio or reading some highly colored detective story. Here is another child, a nine-year-old girl, strikingly thin and pale, unusually nervous, half-sick most of the time, and a day-dreamer at school. Study of her case reveals the circumstance that she is spending the small sum given her each day by a hard-working parent for her noonday lunch for jelly doughnuts, candy, and ice-cream. Here is still another child — a girl of eleven — who is careless and indifferent in her school work, is irritable and often profane, associates with the least desirable mates, has an air of great sophistication, talks glibly of actors and actresses, and manifests a cynicism and a weariness of commonplace life that would be unseemly in one four times her age. The first visit to the child's home sufficed to show vividly the reason for such a mental condition. The father was a doubtful character rarely in evidence. The mother was distraught and enervated by the care of a younger, sickly child, had little time to devote herself to her older daughter, and admitted freely that she had never understood children and realized that the girl was going from bad to worse.

A progressive condition of mental healthfulness is necessarily conditioned upon the early formation of wise and

proper habits of personal hygiene and general conduct. The first year of life — even the first month — is not too soon for parents to begin paying the most scrupulous attention to these matters. Simple habits of eating, sleeping, and evacuation formed early and maintained religiously are indispensable; these should be supplemented as the child grows older by other desirable habits, such for example as observing a time for work and a time for play; postponing the fulfilling of immediate desires until the arrival of the proper time for their enjoyment; obeying quietly and unprotestingly the requests of the parents; doing immediately what ought not to be delayed or postponed, keeping clothing, toys, and other possessions where they belong; cultivating such desirable and seemly traits as truthfulness, industry, agreeableness, and the like; and manifesting a desire and expectation of contributing helpfully to the work and chores of the household. Habits and attitudes such as these will go far toward reducing friction and conflict in the mind of the maturing child and youth, and preparing him for ready adjustment to the demands which adult life should make upon him.

8. Too much and too early responsibility. The various “young mother” movements that appear in our schools and elsewhere from time to time are excellent means for training girls to become capable home-makers and guardians of children. There are throngs of young girls, however, who because of penury or illness or misfortune in their homes are forced to shoulder the responsibility for the care of other children altogether too young. These “little mothers” often step almost from the cradle into their responsible and wholly unsuited rôles, missing completely the pleasures and the freedom that ought to inhere in all childhood. Young lives thus early and irrevocably tied to the daily rounds of caring for still younger brothers and sisters become prema-

turely old and sometimes pitiful. Stooped and calloused by their weary burdens, they have little inclination and less time for play and enjoyment; mentally exhausted and distracted by their cares, they are unable to profit as they should and might from their school work; often unhappy and embarrassed by their plight they seek release in day-dreaming, misrepresentation, and deceitfulness; living in a hard world, they sometimes manufacture for themselves a happy inner world of fancy; growing older, they may find escape from their bondage by actual illicit excursions into a sordidly real world of glamour and tinsel.

Such a girl was Arla.

Arla first came to our attention because of the anxiety of a teacher over a faded thirteen-year-old girl. In school she was always pre-occupied, always day-dreaming, always staring straight before her without seeing or comprehending. Directions were usually lost upon her, and only when the teacher kept her constantly under supervision did Arla respond like other children. On several occasions she had been detected in extreme untruthfulness, concocting the most fantastic and lurid tales about her family. Investigation of Arla's home revealed a particularly hard situation. The mother had died a year or more ago, after five or six years of a slow, lingering sickness during the course of which she was physically incapable of caring for a family of seven children, only one of whom — a brother — was older than Arla. Responsibility for the management of the household fell consequently upon Arla, and the added care of an invalid mother rendered the child's lot a deplorable one. The father, exacting and unsympathetic, and discouraged over the prolonged illness of his wife, made things still harder for the young housekeeper and "mother." From early childhood, indeed since her seventh birthday, Arla has had the entire responsibility for the household tasks, for the care of her mother, and of her numerous brothers and sisters. In addition to these exacting duties, she has of course attended school, and has succeeded in reaching the fifth grade, which she is now repeating. In the past six or more years there has been no time for play unless Arla ran away from it all for a half-hour and left tasks undone. She worried a great deal about her mother, and was always half-

afraid of her father; she feels her responsibility for the children increasingly and worries needlessly about them. At school she is much preoccupied over her home duties and cares, and in addition is weary and tired most of the time.

9. **Love-starved parents.** In many a home where there is marital incompatibility and unhappiness, one or the other parent — usually the mother — missing the normal stimulus of mutual sympathy and love in the marriage relationship, but unwilling for one reason or another to resort to separation or divorce, lavishes the affection that should be shared with the mate wholly upon the child. Occasionally, if there are several children, the father selects one for his special favorite, while the mother selects another for hers. If there is but a single child, the mother is likely to monopolize and exploit its affections beyond all normal limits. In such a situation, the parent passes most of the waking hours in the child's company, petting him, playing with him, accompanying him wherever he goes, fondling and caressing him excessively, much as a small, lonely boy will exploit and half stifle a long-suffering puppy or kitten. The natural urge in the child's breast to seek companionship and *camaraderie* among other children is discouraged, and the child's feeling and emotional life comes to be attached almost exclusively to the parent.

The effects of such emotional exploitation of a child by a parent are greatly to be deplored. The child's horizon is kept narrowed down to the same limits as marked it off in infancy; normal and healthy intercourse with other children being impossible, the victim of the love-starved parent misses the socializing influences that come from the contact of friends and companions; vigorous and healthy play are denied him; opinions and preferences and viewpoints and interests that he should forge out for himself on the anvils of experience must be absorbed full-grown from the char-

acter of the parent; freedom and independence of judgment cannot be achieved; a morbid aloofness from the world beyond the fireside is developed; uncertainty and even fear of life and life's problems may be engendered; and whatever doubts or convictions or prejudices or idiosyncrasies the parent may be chanced to be possessed of are passed along to the child and become an integral part of his or her personality.

Or, on the other hand, the emotionally exploited child may be so organized as to chafe under the proprietary sway of the parent, and to covet secretly relief from the obnoxious bondage. Here, for example, is a girl who is temperamentally high-strung and inclined to be self-willed and independent. Her doting and highly nervous mother eats with her, sleeps with her, goes to the movies with her, reads with her, accompanies her to church, to the doors of the schoolhouse, and even to the corner drugstore. When the girl — fourteen years old — rebels and avoids this overwhelming intimacy, the mother chides her with ingratitude, dissolves in a flood of tears, and betakes herself to bed, complaining that she is ill and that her daughter for whom she would gladly give her life-blood neglects and deceives her. The daughter is duly sorrowful, promises to be better, and then, her mother being recovered, resorts to still more guarded deceit and cunning in order to escape the maternal monopolizing that becomes daily more irksome and repulsive to her. Things go thus from bad to worse until finally, when the girl's indiscretions become cumulative and the mother's tyranny the more complete, the aid of the guidance clinic is sought and the beginnings of a new adjustment and a new sanity are made in the home. The inevitable deceitfulness and ultimate open revolt and delinquency which the love-starved parent encourages in temperamental children of this sort by an undue emotional exploitation of

them wreaks havoc of course with their mental serenity and peace of mind, and causes no end of conflict and maladjustment in their lives.

10. **Other home sources of conflict.** Within the limits of a single chapter it would be impossible to discuss, in any detail, the numberless home sources of maladjustment and conflict in the mental experience of the child. In the preceding pages we have referred briefly to several of the unfortunate home or family conditions that are found to lead eventually to the guidance clinic for straightening out and correction. Not by any means all or any great proportion of these unhappy cases ever come to light, and only a trifling number of course can come under the notice of the clinician or the psychologist. Such as do receive the attention of the expert, however, confirm abundantly what has been presented in the foregoing paragraphs, and suggest the malign influence exerted by all such conflicting ideas and experiences upon children and youth.

In addition to the home sources of maladjustment already discussed, clinical experience suggests many others. We can do no more than to enumerate a few of them at this point. In the first place, there is the sour, cynical, disillusioned parent who has met disappointment and failure so many times that he can no longer envisage life buoyantly and philosophically. In consequence, he is at odds with the world, sees little good and much evil in it, and scorns its ways and scoffs at its justice. In the second place, there is the actually psychopathic parent who is afflicted with a highly unstable nervous system, and possesses decidedly neurotic and abnormal traits. His influence upon his children is likely to be anything but salutary and positive; he is excitable, uncontrollable, temperamental, moody; he wears himself out in a treadmill of worry and conflict, and anxiety and fear; and with himself he wears out his family. As the

author of *Outwitting Our Nerves* puts it, this type of individual never dies young, but his friends always do! Third, there is the parent who vents his spleen upon his unfortunate children by everlastingly nagging and scolding and domineering over them until they submit completely, or else revolt and become new potential centers of disaffection and oppression. Fourth, there is the parent who over-represses his children, and fifth, there is the parent at the opposite extreme who permits them unlimited freedom and license. The children of the former must either conform slavishly or else rebel violently, while those of the latter form no needful habits of self-control and adaptation to law and order, but become rather confirmed in ways of irresponsibility and heedlessness.

Besides these, sixth, there are parents who fail to observe the necessary precautions to protect their children from morbid arousal of sex curiosity, it being supposed that until a boy or girl is half grown up there is no special need for personal privacy either among the children or between the parents. No one knows better than the psychiatric worker what baneful effects carelessness in these matters may precipitate, even in the youngest children. Seventh, there are parents who are unusually harsh and unsympathetic with the ways of childhood, either forgetful of their own early years or else products themselves of a wretched and miserable childhood that distorts and confounds their conception of what it ought to be made in their own offspring. Eighth, there is the parent who holds himself aloof from his child and refrains from a normal display of affection and interest. Sometimes this unnatural coldness in a parent may be due to the fact that the children were not wanted, and are looked upon as a handicap and a misfortune; sometimes it is the result of keen and exacting social or business interests that leave no time for the real enjoyment of parenthood;

sometimes it is the expression of a phlegmatic and indifferent temperament that shuns demonstration and the outward tokens of affection. Whatever its cause, like Amaryl-lis in *The Magic Garden*,¹ the child who is its victim is likely to become dejected and unhappy.

Ninth, there is the parent who is obsessed with fanatical or with obsolete and antiquated religious ideas and scruples which are interpreted as denying normal gratification of the social and recreational needs of a child, and in consequence this important side of life is starved and unsatisfied, to the lasting detriment and misfortune of the children involved. Finally, tenth, there is the parent who is dishonest, or who maintains a double standard of living, or who openly flouts the regulations and controls of society, or who prospers in evil-doing, or who is a law unto himself and to no man else. It is almost inevitable that the child of such parentage must walk in the same devious footpath and harbor in his breast something of the same loose standards and uncertain ideals that his elders exemplify.

From all these numerous home sources of conflict — which necessarily overlap considerably — and as many more that might be mentioned, serious maladjustments and disharmonies are produced in the minds of innocent and helpless boys and girls with the result that they develop all manner of paralyzing inhibitions and fears and incompetencies, and jealousies and infantilisms and day-dreamings and cynicisms and neuroses and psychoses that mar and constrict life and doom it to the inferior and the mean and the morbid and the unhappy. Poor teaching and undesirable companions and general community negligence will do much to cramp and dwarf the aspirations and promise of childhood, but most cramping and dwarfing of all the influences that play upon boys and girls in the earliest years

¹ By Gene Stratton Porter.

are those homes that have missed the high goal of their heaven-given calling and destiny.

TOPICS FOR SPECIAL STUDY AND REPORT

1. Write a brief descriptive paper on the theme: "Conflict in Human Life."
2. Spend an introspective half-hour with yourself and try to discover whatever conflicts, such for example as fears, inhibitions, and the like, your own personality appears to be the battle-ground for. Try to account for the origin, and to trace the development of each one found.
3. What "problem parents" have you met or heard about? What disintegrating influences have they upon the mental healthfulness of their children? Cite one outstanding case known personally to you.
4. Consult with some local child guidance agency — for example, the habit clinic, or the children's friend society, or the S.P.C.C., or the associated charities, or the like — and obtain for class discussion whatever information you can concerning the work being done for children and the need for such work.
5. Secure reports from probation officers, court workers, reform schools, training schools, and the like, within your own community or State, and make an analysis of the problem of delinquency as you find it there set forth.
6. Are you acquainted with any homes in which due to quarreling and disharmony among the adults, the children are kept in more or less constant unpleasantness and unhappiness? Are the effects particularly noticeable in their conduct? In what way or ways?
7. Select one of the following topics as the basis for an oral report in class on the subject, "A Striking Case of Unfortunate Home Influence": (1) the oversolicitous parent; (2) prolonged infancy and dependence; (3) favoritism in the home; (4) too much lime-light; (5) lack of training in fundamental habits.
8. Do you know of any other sources of home conflict besides those mentioned in the chapter? Explain them and show how they should be of importance to mental hygiene.

CHAPTER XIV

MENTAL HYGIENE, THE NEW EDUCATION, AND THE NEW TEACHER

The obsolete school of the nineties. The American public school of three decades and more ago was a very different institution from its successor of the first third of the present century. The traditional curriculum was uniform and invariable in nearly every instance. Not more than a third as many subjects were expected to be carried by the pupils. Compulsory attendance laws were either nonexistent, or else were indifferently enforced. Fewer children and smaller classes obtained everywhere. The cost of maintenance, both relative and absolute, was small, and drew to the schools much less critical attention than do the higher costs of to-day. Only the barest beginnings of scientific pedagogy had been made, and the child-study movement, initiated by G. Stanley Hall and his pupils, was only coming gradually into prominence. Methodology was simple and uniform. Standards were old-fashioned and unbending. The individual child might either sink or swim as he would, and no concern was felt for those who sank. The best stayed on and were "educated," while the rest cut loose early and drifted away, sometimes to complete failure, sometimes to success as imposing and indubitable as that achieved by those who stayed on and graduated. Organization was simple; aims were single and unwavering; goals were clear-cut and positive.

The product of the schools of thirty years ago knew only a few things, but he knew them well. He could do only a few things, but he could do them well. He had never heard

of half the things the modern school boy has a smattering knowledge of. He was a stranger in the realms of general science, of natural history, of hygiene and sanitation, of human geography and world citizenship, of home-making and household arts. In his day there was, however, abundant time for drill, and he could read well and write beautifully; he could figure accurately and spell punctiliously. He had a taste for good literature and a secure knowledge of history and locational geography. He was steeped in the lore of the classics and the humanities. So unassailable were his attainments in these fundamentals that it has been a decided shock to him to find his own children, a quarter of a century and more after his own schooling, halting readers, lame spellers, and blind writers and figurers. Not appreciating the complex factors that have encroached upon the work of the schools since his day, he has looked with increasing dubiousness upon the ever-mounting costs of public education, has openly censured the schools for their glaring shortcomings, and has protested vigorously against the continual saddling of new educational fads upon their curriculum.

The school in transition. There have been numerous influences at work in our lives within the last quarter of a century that have left a marked and ineradicable effect upon our public schools. The ideal of universal compulsory education has been so steadily held before us ever since the middle of the nineteenth century that it is now practically achieved the country over. Impressed seriously with the importance of schooling, it has been the ambition of educationists everywhere to extend the age of compulsory attendance from fourteen to sixteen, and in some instances to eighteen years, and to preface it with kindergarten opportunities for as many parents as care to avail themselves of its privileges and advantages. Both these tendencies have

operated to increase tremendously the numbers of children enrolled in the schools, especially of course in the upper grades. Moreover, the general population has been increasing by such leaps and bounds since 1890 that there has been a similar phenomenal swelling in the ranks of the lower grades also, so that our entire public system from the kindergarten to the twelfth grade — not to mention the college grades, which have grown equally — is glutted with children and youth seeking an education.

This situation is by no means all. So marvelous have been the development of human knowledge and the expansion of human enterprise during these decades that it has been felt necessary to introduce into the curricula of the schools the rudiments at least of a score or more of new subjects of study, in order that those pursuing them might be more intelligently prepared to choose competently among the myriads of new trades and industries and professions opened by up our cumulative civilization. This natural outcome of an age of unprecedented progress, taken in connection with the constantly increasing number of children to be handled all along the line, has been the principal causative factor in numerous rather serious educational difficulties and complications. If there were failures in the eighties and the nineties when there were fewer children and fewer subjects, how much more numerous and vexing have failures become in recent years! To make matters worse, under our newer regulations those pupils who "failed" are not permitted to drop out, but are compelled to bring up the rear as "retarded" children, or "repeaters," or "over-age," or "slow" children. The consequent glutting and slowing-down of our elaborate educational machinery have reacted harmfully, and in some instances paralyzingly upon the schools, especially in the intermediate grades where the pupils naturally pile up in alarming numbers.

Effects of the statistical era. The advent of the statistical era in education served not only to reveal the numbers of these school laggards, but paved the way for the recent elaborate efforts to analyze the school returns in every sizable community. Hardly a municipal school report in the last twenty years or more has failed to include within its pages tables and graphs to indicate to the tax-payer and to the student of education the age-grade distribution of the pupils, the numbers and percentages under-age, over-age, and average for their grade, and the demonstrable cost of retardation. Community after community have been galvanized immediately into a new educational wakefulness, and have set themselves to the yearly task of comparing the local school statistics and tables with those of other communities. Obviously large discrepancies and disuniformities were revealed, and the educational reputations of many communities were seen to be in jeopardy by the unfavorable showing which they made in these matters.

To correct the evil, frantic efforts were made. In some localities the problem was solved satisfactorily — so far as the tables showed the situation — by promoting every child religiously at the end of a year's sojourn in a grade, regardless of whether he was ready or fit for harder work. In others, judicious attempts were made to hold back no more as repeaters in a grade or in a school than were offset by double promotions of accelerated children. In many localities standards were lowered and are still being lowered to make possible a commendable showing on paper in the matter of age-grade distribution, and a consequent apparent return of one hundred cents on every dollar expended in the cause of public education. All these and other doubtful devices served to solve the vexing problem raised by the statistical bugbear, albeit they tended more and more to cause the individual child and his needs to be lost sight of and mass

progress and mass attainments to be magnified at every point. As Nudd remarks:¹

From an administrative point of view a perfect age-grade distribution made a wonderful statistical impression and entitled the school system to meritorious mention. In the face of such a situation, it is little wonder that for a time more thought was given to the ebb and flow of mass showings than to the measures which might be taken to further the welfare of the individual children who were plainly out of adjustment with the school. The school was still the mold and the children were to be bent or manœuvered to fit it. What effect this arbitrary pressure and manipulation might be having upon the emotional lives of these children, what fears, aversions, or antagonisms they might be creating, were almost lost sight of in the urge to make the group record of apparent educational achievement look commendable to a critical world.

The introduction of intelligence and achievement testing at first eventuated similarly in a way to bring into chief prominence the *status quo* of the mass, and to neglect the individual child. If it could be shown through tests that the average intelligence, or the average achievement in arithmetic and composition, etc., in a given grade was "up to" the published norms of the measuring sticks used, the teacher was happy because of her evidently successful teaching; the superintendent was content because of his efficient supervision of instruction; the community was flattered because of the tested and tried excellence of its educational system; and everybody congratulated everybody else.

Deeper down than averages and medians and modes, however, were scores of children in every sizable school who suffered in secret and in silence at this inordinate worship of a new divinity — the divinity of the norm. These pupils were, on the one hand, the sluggards and the laggards, the slow and the indifferent, the morons and the border-liners,

¹ Nudd, Howard W.: *Reprint Series No. 3, Commonwealth Fund Program for the Prevention of Delinquency*, p. 18.

and, on the other hand, the bright and the superior, the quick and the eager, the gifted and the near-geniuses. And on both hands they comprised the fearful and the diffident, the inhibited and the negative, the unhappy and the brooding, the antagonistic and the contrary, the overemotional and the overreserved. Mass instruction and mass standards for these child types have failed miserably.

The emerging new school. Fortunately, however, as time went on the testers made the discovery that while norms of achievement were important and told a valuable story, they were by no means all-important. Indeed, the greatest usefulness of tests was seen to be their diagnostic value in determining the educational weaknesses and the mental abnormalities of the individual child. But for the strong light thrown by the measurement movement in education upon the individual differences of children we should probably to-day be still limiting our analysis of this problem to the formal cut-and-dried academic discussion of the parts played by such indefinite factors as near and remote ancestry, sex, and maturity in variational psychology, as we were serenely doing twenty years ago, and leaving the problem of definite and purposeful diagnosis of the abilities and needs of individual children almost untouched.

One of the earliest steps taken to adjust the schools to the needs of the individual child, as the tests revealed them, was the separation of those pupils who were demonstrably inferior from the central group, and the provision of special classes for them as backward or exceptional children. This step was followed by others which were designed to make possible more homogeneous grouping of the school population, and which we have discussed at some length in earlier chapters. (See especially Chapters VI and VII.) Special classes and special schools for the mentally and physically handicapped, for the accelerated and gifted, and for the

incorrigible and delinquent have received more impetus as a result of the measurement movement than from any other source. At the present time, in the more progressive of our larger communities at least, there is a reasonable certainty that any markedly atypical child will be placed in the sort of school and will receive the type of training that he most needs, though the available facilities along these lines are by no means yet either ideal or numerous.

Notwithstanding these excellent developments along the line of special education for those children most removed from the type, we have after all achieved but little in the direction of individual training of the individual child. True, we have a few experimental schools where excellent pioneer work of this nature is being done; and we have a modest but increasing number of communities that are trying out some form or another of individualized work in their schools. We have a considerable number of systems that are offering some form of guidance designed to analyze a child's inclinations and abilities, in order to counsel him intelligently in his choice of life work and in his selection of courses or programs of study, and we have formulated differentiated courses to meet the needs thus revealed. We have also introduced flexible schemes of grading and promotion to accommodate the various rates of progress maintained by individual children. These and other modern movements in education constitute problems that are commanding, and will continue for many years to come to command, the serious attention of experimental and theoretical educationists everywhere.

Newly defined problems of behavior and character confronting the schools. If the schools have accomplished relatively little thus far in adapting the program of study to the individual needs and abilities of their patrons, they have done almost nothing in the way of solving those deeper pro-

blems of behavior and character which have their roots in the social, emotional, and personal experiences that play upon the child, both within and without the schoolroom. Traditionally, and still almost universally, the school is regarded as an institution designed to teach certain blocks of subject-matter within a given period of time to a given number of pupils in the same way and with the same measurable results. The child consumer of this *menu* will partake of his educational meat none too zealously, but so long as he applies himself to the feast without discernible rebellion he is deemed to be growing in strength and certain to be growing in favor. Ordinarily such motivation as exists is the subjective appeal of competition or praise or reward, or else of punishment or censure or deprivation. Objective and impersonal aims and values are rarely in evidence in our schools.

Mental hygiene is interested in attacking the problems of behavior arising out of such an unfortunate conception of education, and in finding a satisfactory solution for them. The mental hygienist knows very well, however, that only through a definite modification of these hoary conceptions of the school and its functions can any enduring and universal solution be reached. If the school of the future is to cultivate and promote wise conduct and hygienic behavior in its pupils it will have to base its efforts upon a better understanding of the child. Fortunately the study of child psychology has done much, in recent years, to equip young teachers better for their tasks; but unfortunately it has not done anything like enough along the lines of presenting the *whole* child. We have been content in our teacher-training institutions to go through with lessons in formal psychology that are quite divorced from the practical psychology of childhood; we have stressed laws of learning and principles of teaching to the neglect of child development and principles

of character and personality evolution; we have, in brief, magnified the intellectual side of a pupil's development and minimized shamefully his moral and emotional and social sides. The end result has been to turn out teachers able to go passably through the approved motions of teaching a lesson in this subject or in that, but woefully incompetent to deal with those other sides of a child's nature. McCord no doubt has this in mind when he says: ¹

So-called formal education has been a sort of kid-glove affair that has hesitated to handle a squirming, crying, laughing, scratching, biting, hungry, cruel, selfish, thieving, lying, sensual, deceiving, perverse, helpless, shameless, puking child. It has been more in line with the æsthetic sensibilities of the champions of formal education to refuse to perceive the child in any other light than a being pure, delicate, serene, clean, innocent, rosy, tender, dependent, loving, generous, cherubic. The study of the infant or the child first as a little *animal* and of his mental activities as expressions largely of his instincts has occupied a small place in the program of the educator; often such suggestions have been looked upon as well-nigh sacrilegious. More and better trained teachers, psychiatrists, and social workers are needed. Fewer sentimentalists and propagandists and more coldly scientific and fearless researchers are needed in the mental hygiene field.

Far more attention must be given in our training schools to the study of environmental agencies, of the problem of self-expression, of social habits and attitudes, of delinquency and quasi-delinquency, of instinctive urges and trends, of the doctrine of interest, of emotional release and satisfaction, of forces that make or mar character, of behavior and conduct problems, of conflict and adjustment, and the like, in order that the teachers of the coming generation may more intelligently and successfully teach the *whole* child, as distinct from the child as an intellectual reagent.

Objective rather than subjective results to be aimed after

¹ *Mental Hygiene*, vol. VIII, pp. 447-48. (April, 1924.)

in the new school. Perhaps as much as any other single factor the traditional and almost universal appeal to subjective motives and aims, rather than to objective ones, has been responsible for the growth of unfortunate character and behavior traits in the schoolroom. Teachers have always praised their pupils when they performed well; they have always pitted one section or one individual against another in competition; they have always held out rewards and punishments as motives or as deterrents. The effect of such practices has been to cultivate the subjective attitude towards the tasks of the schoolroom — and by implication of course toward life itself — rather than the objective and impersonal one, and the emphasis has been placed consequently on the qualities or characteristics of the individuals who did the work rather than upon the results achieved. Bitterness and jealousy thrive in such an educational atmosphere; invidious and inglorious comparisons are made between pupils; discouragement and unhappiness are prominent; the discomfiting rival is kept unhealthfully in the foreground; and inferiorities and superiorities are certain to make their morbid and unwholesome appearance.

In the new school the emphasis must be shifted from subjective to objective results. To make such healthful transfer of emphasis possible, one or both of two radical changes in the curriculum will have to be made. On the one hand, it will have to be organized into units that will make it easy and attractive for the individual learner to become one of a group engaged upon a common task. If these tasks are wisely developed — so far as possible along the lines of the pupil's interest — they will challenge the whole attention of the learner, undivided by jealousies and worries that arise out of a process in which the subjective attitude is needlessly excited, and will make the learning process infinitely more interesting and pleasant. Or, on the other hand, as

an increasing number of our best schools are already doing, the mass-instruction idea will have to be largely given up and the work of the curriculum organized into individual assignments, modeled more or less after the Dalton Laboratory plan. In this way the deleterious subjective element will be largely removed from the learning process, and in its stead objective and impersonal results will stand out prominently in the mind of each pupil. Probably a combination of group jobs and of individual job assignments will prove to be the most satisfactory solution of the situation. The former will provide for the normal social give-and-take that is so valuable in the development of confidence and caution; the latter will inspire the learner to follow out interesting and attractive lines of thought and investigation that open up in connection with the group tasks, and will challenge him to produce the best work he is capable of.

A recent writer has pointed out ¹ well the undesirability of continuing longer the subjective appeal of our conventional classroom procedure, and the importance of placing the emphasis upon the objective results, where it ought properly to be. She says:

There is little in the individual mastery of so many facts in history, science, or geography, or in the memorizing of so many tables — except the superiority over other children which successful performance gives, and the approval of parents and teachers — to utilize the instinctive drives or develop the natural curiosities into genuine interests. There is still less to give the children the comfortable objective atmosphere, free from the strain of competition, with its resulting inferiorities and superiorities, which comes from working together on a common problem — a problem that is their own and whose solution has a value in itself for each child independent of his personal share in the process. This does not mean that the child gets no personal satisfaction from the success of his indi-

¹ Taft, Jessie: "The Relation of the School to the Mental Health of the Average Child"; in *Mental Hygiene*, vol. vii, p. 681. (October, 1923.)

vidual efforts, but emphasis is put where it belongs — on the object, the result, not on the qualities of the persons who take part in producing it. Criticism is impersonal because it is directed to failure of the work to attain the child's own end, and praise is of the successful solution, not of the successful child.

The new school will be a miniature of adult society. At numerous points throughout this volume we have indicated the importance of relating, as closely as possible, the work of the school with that of society outside the school. Too long the school has been sequestered from life; too long its tasks have been unique and without any observably close parallel with those of the non-school world; too long it has neglected those things of closest human interest, and busied itself on things of a highly scholastic and impractical nature. The cause of mental hygiene has never been served egregiously by thus divorcing the school from life. Such an unfortunate separation has always operated to make pupils chafe and often rebel against their school work, and has led thousands of them every year to drop out prematurely from the ranks of formal education and confront life ill-prepared and doubtfully accoutered. We have remained a nation of sixth-graders, so far as formal educational achievement is concerned, not principally because of poverty that has forced children to go to work as soon as they attain the minimum legal age, but largely because the school has appeared to huge numbers of them to offer nothing worth staying on to obtain. Life could best be prepared for by embracing life directly, rather than indirectly and uncertainly in a schoolroom that held itself aloof from vital and practical things.

The new school will break definitely with all this dubious and uncertain educational philosophy, and will hold its pupils beyond the bare legal requirements because it will be patently a preparatory period for complete and practical

living. The artificial boundary-lines between the various school subjects will be obliterated, and the field of knowledge will present a uniformity and connectedness that is reflected in the adult world of human contact and experience; the obsolete and the useless and the impractical will be dropped from the curriculum, and what remains will be organized, both logically and psychologically; study will be no longer a half memoriter process of absorption of the printed page, but will be rather an active process of research and the investigation of vital and attractive problems; the same sort of analysis and reasoning and inquiry that are important in attacking the problems of the grown-up world will be permitted and required in the schoolroom; the interests of the society outside will be brought daily into the schools and incorporated in their curricula; representatives of business and industries and public works and philanthropies will be invited to school to describe the enterprises in which they are engaged, and in which human beings are vitally concerned; the doors of these institutions will be thrown open to the schools, and the pupils will observe at first hand something of the mechanism of social enterprise and organization; shops and laboratories will be deemed to be essential and will be made integral parts of every school plant; the needs and capacities of all sorts and conditions of learners will be amply provided for by varied types of curricula; guidance and counsel and exploratory courses will be no longer considered fads and frills, but will hold as honorable a place in the school as the time-honored three R's have always held; the bugbear of semiannual or periodic promotion will be withdrawn from the present highly artificial place which it occupies, and in its stead school progress will be made dependent upon conscientious and earnest work, as it is in the grown-up world of men.

When these and other desirable modifications and im-

provements in our educational aims and contents and methods have been happily brought to pass universally in the schools, the present hiatus between school and life will be bridged; school will *be* life during its first quarter, and no normal individual will contemplate leaving school prematurely, for to do so would be tantamount to the renunciation of life itself. In consequence of this integration, when the school years are ended there will be no reckless and uncertain "graduation" and plunge into life; rather there will be a continuity into life of the plans and purposes and skills and achievements fostered in the school environment.

The new school and the new home. But the new school cannot hope to fulfill its mission without a new coöperation and a new understanding between it and the homes from which its pupils come. One of the most unfortunately negative features of present-day education is the universal lack of any close contacts between these two chief agencies in the training of boys and girls. This is due in most cases, so far as the home is concerned, not to any feeling of hostility, or even to any lack of sympathy for what the schools are endeavoring to accomplish, but rather to the general supposition that the school is society's duly qualified and appointed representative in teaching the younger generation, and as such needs no assistance or help from the home. This is certainly a laudable conception so far as it goes, but unfortunately it does not go very far. Every principal and every teacher laments this *laissez-faire* policy, since it leaves them without that intimate and helpful knowledge about their pupils which contact with the homes from which they come would furnish them. After all, education is essentially a co-operative enterprise between the home and the school, and for either to perform its share of the work in the dark is to invite criticism and to run the risk of turning out a decidedly mediocre product.

Some day society will reach the point in its evolution where it will appreciate the fundamental fact that an educational system is no stronger than its weakest links, and that as long as there are homes that are discharging poorly their responsibilities our whole structure is in danger. Somewhere in the social scheme of things it will then be found to be an economy to provide specifically trained workers to make those very home contacts which now are unrealized save in rare instances. School nurses and social workers and a few kindergarten and primary teachers are already visiting the homes of a few sickly or very young children, and the excellent results which they are achieving are well and favorably known to every principal under whom they have worked, but this is a mere drop in the bucket when compared with the wide need of home visitation and counsel of this nature. It will be the responsibility in the new school for trained workers to go into every home and check up on the totality of its influence upon those children who issue from its doors, and to counsel with it concerning their best interests.

Recently the "visiting teacher," so-called, has come into prominence as the special worker attached to the school for this very purpose. Originating in 1906-07 in New York, Boston, and Hartford, the visiting-teacher movement now (1926) has been introduced into sixty-four cities, scattered among thirty-four States of the Union. Writes the Secretary of the National Committee on Visiting Teachers:¹

Some one within the school system was needed whose duty it should be to know the conditions under which the pupils live and play, and their consequent educational needs; to become acquainted with the individual child in his home and school relations; to dis-

¹ Culbert, Jane F.: "The Visiting Teacher," in *Annals of the American Academy of Political and Social Science*, vol. xcvi, no. 187 (November, 1921).

cover handicapping factors and bring about the adjustment of his special difficulties through the coöperation of home, school, and social agencies. To assist the school to prevent later social wreckage, and make sure that each child's individual problem is seen and that his educational and social needs are met, the visiting teacher has been added to the school staff.

Whether the school visitor, or the school nurse, or some other worker will prove ultimately to be the best solution of this problem cannot now be stated; the feeling of need among teachers and principals is, however, already keen, and sooner or later society will demand competent helpers who will go into the homes and enlist their sympathetic, active, and even eager coöperation with the schools in the common task of training up their children into the best and most healthful lives possible.

Intelligent individual diagnosis in the new school. The rank and file of superintendents and teachers have failed signally to grasp the fundamental value of educational tests and measurements. As we have suggested above, these modern devices have been hailed chiefly as a means of classifying pupils and of calculating the results of mass instruction. Only in sporadic and isolated communities have their deeper values been perceived as a source of obtaining an actual diagnostic knowledge of a pupil's possibilities and limitations. More and more in the new school this ideal of diagnosis and prognosis must come into prominence. There are probably few great enterprises that human beings engage in more blindly than they do in the training of their children. Almost without exception throughout educational history this process has been limited strictly to the formal learning of certain set and uniform lessons and skills, invariable for all patrons and universal in all schools. Such human variables as abilities, bents, preferences, interests, and capacities have been almost totally neglected. The

result has been lock-step schools, misfit children in attendance upon them, and an inordinate travesty upon the most original force in life — the individuality and originality of the human mind.

Properly handled, the tests already devised are adequate to transform completely our whole educational philosophy and give it an entirely new slant. As future more refined and exact measures become available, still greater transformations must be wrought. Prominent among the changes thus made imperative will be this whole matter of individualized instruction, and the importance of educating a child largely according to his capacities and inclinations. There can be no virtue generally in persisting in the squaring of pegs that were designed to fill round holes, nor for the rounding of pegs designed to fill square holes. Specifically, there can be no justification for serving up a classical training for those pupils who are best equipped for the trades and industries; nor for a commercial course for those whose leanings and tastes are all in the direction of the humanities; nor yet for a pre-scientific program of study for young people who have the gifts of the poets and the litterateurs. We lament loudly to-day the dearth of great men and women; such a dearth is inevitable in an educational system that compels every potential genius to torture himself and dull the edge of his enthusiasms by devoting the allotted school years to a stereotyped curriculum that gives his peculiar bent scant if any opportunity to reveal itself. The potential young genius of a century and more ago could abandon the formal work of the school and devote himself early to the arts, but in our modern system none may excuse himself, on peril of becoming a repeater or a delinquent and suffering the discomforts and the opprobrium attendant upon being a misfit and a laggard at school.

In the new school there will be room for nurturing the

gifted pupil and the genius as well as the mediocre and the defective, and not only will there be room for their nurture, but there will also be facilities for discovering their highest potentialities and for directing their study into those specialized fields for which they are best adapted. This does not of course mean that in the new school there will be only extreme individualism emphasized. Despite our vaunted social pedagogy — the *Sozial-Pädagogik* of the Germans — our contemporary and near-past schools merit themselves the criticism of being individualistic in the sense that they have made the subjective rather than the objective appeal, and have encouraged in their patrons such unfortunate traits as jealousy, personal rivalry, personal achievement, and the inferiority and superiority complexes. The new school will aim at objective and impersonal results, and its whole emphasis will thus be social. Individual bents will be encouraged and developed to the limit, but always to the end that talents thus improved may be used for the greater happiness and the general welfare of the group.

New teachers for new schools. The most enlightened and progressive ideals for the new school, however, can achieve little without the supplementing strength contributed to it by a type of teacher now found all too infrequently in the service. It is a platitude of course that the influence exerted by a teacher perennially upon the boys and girls who sit under her is one of the strongest determining factors in the lives of children and young people. The lack of scrupulous care, however, with which society selects those individuals in it to whom the training of its youth is to be entrusted is strangely inconsistent with its appraisal of the importance of the service which they are supposed to render. It was bad enough a generation and more ago when a favored niece of the school committeeman, or a young strapper working his way through college, or some other

opportune candidate was hired to teach the school. With the infinitely greater number of teachers who must be employed, with the greater attractiveness of more remunerative occupations, and with the ease with which admission to the training schools is made possible in most of our States, conditions are little improved to-day.

No one knows yet much about what qualities constitute a good teacher, nor what teachers have them to a sufficient degree. We should like to believe that general intelligence and a high degree of scholarship are desirable qualifications for successful teaching; unfortunately, however, there is abundant evidence in the possession of every superintendent to indicate that many teachers decidedly weak in scholarship achievement and mediocre in I.Q. are all that are to be desired in the schoolroom, both from the standpoint of the quality of their teaching and of their influence and of their personality traits. Likewise many another teacher whose intelligence and scholarship are unimpeachable is little short of a complete failure as a teacher. Exactly how much intelligence an individual must have in order to be a successful teacher; whether there may be a maximum amount of intelligence beyond which, due to the presence of other traits, one may be unsuited for satisfactory and devoted teaching; in how far certain traits other than intelligence and scholarship may compensate for mediocrity in these; what these traits are; and a host of similar questions relating to efficiency in a teacher, we do not yet know. Even if we did know, we are not thus far in possession of sufficiently fine measuring sticks to determine who has these traits and to what degree, notwithstanding recent attempts in several quarters to apply objective methods to the selection and the judging of the efficiency of teachers.¹ This whole matter is to-day very much

¹ For example, Witham's "Teacher Measurement Scale," Schutte's "Scale for Rating Teachers," Giles's "Recitation Score Card," etc.

in the foreground among superintendents and training-school faculties, and while personality traits are the most elusive things in the world to measure, or even to approximate, there is no doubt but that sometime in the not too distant future we shall have at our disposal not only substantial information as to what are essential traits in the teacher, but also reasonably accurate and trustworthy means of measuring them.

The teacher must remain youthful in outlook. The unmarried woman appears to have become almost universally the teacher type in our American schools. This means of course that, barring those who are transient members of the profession, the comfort and security of family life are denied them, and the complete responsibility of protecting their own interests and safeguarding their future and their old age falls upon their own shoulders. Notwithstanding the volume of fresh young blood turned into the vacant teaching positions every year, the rank and file of the teachers in our schools is comprised of mature women who are devoting themselves to their work without any great inclination to desert it for other ventures. Society owes it to these public servants, whom it has charged with one of the most serious of responsibilities, to safeguard them reasonably well against worries and uncertainties in order that they may bring to their daily tasks a buoyancy, a singleness of purpose, and a consecration without which they cannot hope to fulfill acceptably their obligations and functions. The effect upon a school of a mental condition of resentment, or rebellion, or anxiety, or dissatisfaction in the teacher can hardly be calculated; it is obvious, however, that the nervousness and abstraction and irritability engendered by these conditions exert a subtle influence upon the attitudes and behavior of boys and girls that is the reverse of healthful and stimulating.

Dr. Glueck enumerates¹ thus some of the vexing and harassing factors operating to throw the teacher out of adjustment with her job:

The fatigue engendered from having to manage too large classes, the ennui which is inescapable when one is so largely deprived of the opportunity to exercise one's initiative, the irritations that are bound to come from consistent lack of appreciation of one's best efforts in connection with an administrative machinery which has become so largely impersonal in nature, the anxieties over security of tenure, all these are effects which only the exceptional teacher is able to escape. The average man or woman obliged to work under these circumstances comes to reflect in his own personality and attitude the characteristics of the dissatisfied and balked individual, characteristics which in the specially sensitive person are sufficient to poison the atmosphere of any classroom. It is particularly under these conditions that a teacher is apt to resort consciously or otherwise to a kind of exploitation of his or her authoritative position which plays havoc with the personalities of the children. No attempt to estimate accurately the effects upon child life of classroom procedure is apt to be dependable unless it takes into account the important question of the teacher's personal adjustment to her position and task as a teacher.

Above all things the teacher must remain buoyant and youthful. Distracted and anxious over the factors suggested by Dr. Glueck, she is bound to lose that resiliency, and adaptability, and flexibility that are indispensable to any teacher who is to achieve worthy results in her work. It is not alone worry over tenure, lack of appreciation, mechanical supervision, and the like that spoil the spirit of the teacher. There are other factors — internal rather than external — that are equally deadly to the maintenance of youthful and hopeful viewpoints. These influences are very human and very understandable, but they are none the less

¹ Glueck, Bernard, M.D.: "Some Extra-Curricular Problems of the Classroom," *Publication No. 3*, Joint Committee on Methods of Preventing Delinquency, p. 4.

unhygienic and unsalutary. Despite her earlier happiness in her work and the completeness of her devotion to it, many a splendid teacher approaches middle life and the envisagement of a lonely old age with much trepidation and foreboding. Physical youth has flown, and with it there has come a psychological change that threatens mental youth as well. How many a teacher is there in the forties who has lost her resiliency and her suppleness and her human sympathy, and is in the way of becoming harsh, unsympathetic, narrow, cranky, opinionated! Alas for the ever-recurring band of boys and girls who must be contaminated by her disaffection and her somber personality. Warm youth cannot brook such things, and in consequence turns shivering away. It sometimes seems as though a slowly aging teacher is envious of the perennial brightness and freshness of youth, and withdraws herself within her own cold walls lest the contrasts become noticeable, thus making them noticeable indeed!

If the mature woman teacher is to continue to be attractive and youthful in her viewpoints, she must fight the good fight against these subtle encroachments, and strive actively after a new and higher vision of her work. Instead of trepidation and rebellion and fear — however concealed behind an impassive and inscrutable countenance — the maturing years ought to bring to the teacher wide experience, better methods, deeper understandings, brighter and sunnier outlooks. Instead of “falling into the sere, the yellow leaf,” she should find herself accompanied by “honor, love, obedience, troops of friends.” She may indeed have to fight the dragon, but the outcome should never be in question, and to her pupils she ought to be increasingly a source of stimulation and of resolution for the highest and best of things. For the soured, disillusioned, disappointed teacher, there ought to be no excuse and no place. Let the teacher

then cultivate assiduously the youthful outlook, the calm and confident assurance of tasks well performed, the elasticity and adaptability that were hers in the younger days, a freshness of interest and enthusiasm, a sympathy and a broad- and open-mindedness, and such other virtuous traits as make an inevitable and a challenging appeal to youth in all ages. And let her beware lest the running of life's sands leave her empty and cold and inert!

Teaching as social service. One of the most likely ways of establishing the new school on its proper basis will be the elaboration of a wholly new concept of the teaching profession. Heretofore in our educational history, teaching, far from meriting the distinction of being a profession, has been undifferentiated from other jobs that individuals have hunted and held until something better offered. With the constantly increasing insistence upon specialized training for teachers, and with the recent wise extension of this training to cover a period of at least four years, teaching is by way at last of becoming a real profession, with its own standards, ethics, and ideals of service.

A yet greater step must be taken before the calling of the teacher can be properly envisaged, either by those who seek to enter it or by society itself. The teaching profession must come to be thought of, spoken of, and conducted as a fundamental form of social service. When such a conception as this obtains universally throughout society, those individuals will be attracted into it who have definite ideals of service, rather than the mere wish to hold a job or to make teaching a stepping-stone to something else; society will understand that the service of the teacher class is not confined to the four walls of a building and to six hours out of the day, but rather is concerned with the extra-school influences, the home, the play facilities, the health, and the general well-being of the young; the needs of the whole child

will be appreciated, and means of ministering to them all will be forthcoming; and last, but hardly least, a more rational correlation will be made possible between the various agencies — educational, family, social, and religious — which at the present time operate more or less independently in the process of training and educating society's children.

Ideals of the new teacher. The new teacher of the new school will embody all that is best in the old teacher in the way of earnestness and devotion to her work, and in addition to these virtues she will be possessed of the new viewpoint in education as we have endeavored to set it forth within the pages of this volume. She will be a master of the art of teaching — yes; but she will have also the viewpoint of the mental hygienist. She will have a scrupulous care for such personal factors in her own make-up as attitudes, self-control, emotional display, and the like, knowing full well the subtlety of influence which she will inevitably exert over her pupils. She will be strictly honest and impartial in all her dealings with her children, and will strive in all possible ways to win their complete confidence and self-respect. She will maintain the objective attitude in her teaching, leading her pupils impersonally and scientifically in their exploration of the field of human knowledge.

She will encourage always such qualities as independence of judgment and viewpoint, confidence and self-assurance, industry and determination, and the will to achieve. She will seek to understand the whole child and to supply adequate opportunities for the whole child to express himself. She will be actively concerned for the extra-school welfare of her children, and will cultivate actively the sympathy and coöperation of the homes from which they come; she will be keenly interested in each pupil as an individual, and will endeavor to diagnose the reasons for his failure at any stage of the school work, to discover his points of weakness and

strength, and to so manipulate his school experience that he may find himself, and, finding himself, may acquit himself commendably both at present and in the future adult world. She will be positive, aggressive, forward-looking. She will have faith in herself and faith in youth. She will have the outlook and consecration of our best social workers. She will maintain an open mind and the experimental attitude. She will be optimistic, serene, confident. In short, she will be well adjusted herself to her tasks and to the social order, and will strive to promote in her pupils an harmonious adjustment to their tasks and their social experiences, both within and outside the school. When the ideals of the teacher of youth have been raised to approximate these standards, the chief principles of mental hygiene will be satisfied, and the excellence of public education will be securely established.

TOPICS FOR SPECIAL STUDY AND REPORT

1. Are you acquainted with any older individuals who dropped out of school early because they felt they were deriving scant benefits? Do you know on the other hand individuals who have never ceased to regret the circumstance that they were compelled for financial or other reasons to leave school prematurely?
2. Have you heard any "knockers" of the modern schools? What were their chief criticisms or grievances? Were their opinions unfair, resulting from ignorance concerning the complex demands our civilization makes upon the schools, or were they in part at least justifiable? Explain.
3. Consult recent educational statistics and plot curves to indicate the increase by ten-year periods since 1880 (*a*) of the pupils enrolled in the elementary schools; (*b*) of those enrolled in the high schools; (*c*) of the gross cost of public education; and (*d*) of the total population. What conclusions do you draw?
4. Make as complete list as possible of all the subjects taught widely today in the lower schools. Make a similar list of those subjects found in the curriculum of, say, 1880.
5. Consult local school reports for recent years and find the amount of retardation in the schools of your State and community. How do the

compilers of these reports appear to react to the problem of retardation?

6. What is the justification for the expression: "the divinity of the norm" as used in this chapter? How is deference to this "divinity" incompatible with the cause and furtherance of mental hygiene?
7. Why is a study of the *whole* child important for mental hygiene? In how far is this ideal in operation already in the schools generally? Is it more or less prevalent than it was two or three or more decades ago?
8. Write a five-hundred-word paper on the theme: "Objective *versus* Subjective Appeal in the Classroom."
9. Have the schools tended perceptibly within your memory to become actual miniatures of adult society; or do they appear to you to have made little if any real progress along these lines? Explain.
10. If the emphasis in our American pedagogy during the past two or more generations had really been social rather than individualistic, do you believe the development of our great trusts and gigantic business and industrial corporations would have been possible? Explain.
- 11. Consult the teacher-rating scales mentioned in the footnote on page 346, and such others as may be available. What traits or capacities do they appear to be chiefly concerned in discovering and measuring? Keep in mind your own qualities as you study the scales. Do you feel that any or all of them would fairly diagnose your teaching aptness? What modifications in them would you propose?

CHAPTER XV

THE CHILD-GUIDANCE CLINIC

What is a child-guidance clinic? One of the most practical material results of the mental-hygiene movement of the past two decades has been the rise and development of the child-guidance clinic in scores of cities and towns throughout the country. Various styled "child-guidance clinics," "mental-hygiene clinics," "psychological clinics," "children's clinics," "consultation centers," "psychiatric clinics," "neuro-psychiatric clinics," "neurological clinics," "mental clinics," "habit clinics," etc., these centers are concerned exclusively with ministering to the needs of psychopathic or maladjusted children, just as medical clinics minister to the needs of physically deficient and ailing children. The same aims and purposes actuate the work of the guidance clinics as that of the medical clinics, namely, the correction of conditions and tendencies which, allowed to continue unchecked, are certain to influence unfavorably the whole development of the individual and are likely to eventuate in decidedly serious consequences at some future time.

We have referred in the pages of this book to a sufficient number of cases illustrative of faulty adjustment and conflict in children to indicate the size and nature of the problem which confronts the guidance clinics. It is their task to study the difficulties of adjustment, the emotional abnormalities, the irregularities of personality, the influence of wrong habits, of bad environments and unhealthful associations, and to help those children who are the victims of these and other unfortunate inhibitions and restrictions to find a way out and lay the foundations for a more hygienic and a better-

integrated self. It is of the greatest importance that the undesirable adjustments which are hit upon as escape avenues and all other irritating and disconcerting factors in the personality shall be eradicated as promptly as possible, and that healthful and normal ways of reacting shall be set up in their stead. The child-guidance clinic, by virtue of its trained personnel, and the exhaustive methods by which it seeks to reach the roots of personality difficulties is the most likely agency available for affording relief to unhappy or misunderstood children, and to disconcerted and often distracted parents who are at their wits' end to know what to do or where to turn.

What children are in need of its ministry? Among the types of children most frequently referred for help to the guidance clinic are:¹

(1) Those who by reason of mediocre endowment are unable to adjust to the social *milieu*.

(2) Those who by virtue of broken homes, bad companions, poorly suited school opportunities, and the like, develop abnormal traits and possible delinquencies.

(3) Those who by virtue of constitutional deficiencies are distinctly psychopathic in their traits, who are defective in specific emotional and volitional spheres, decidedly uneven and insecure in the intellectual sphere, and who tend to be untruthful, fanciful, secretive, selfish, and one-sided.

(4) Those pre-psychotics who are "unstable in nervous make-up, the stammerers, the bed-wetters, the sufferers from fears and obsessions, the children with 'spells' (when not clearly epileptic), with tendencies to dissociation, to seclusion and introversion, to depression, with paranoid trends, and with homosexual or other perversions."

¹ As enumerated by Winifred Richmond in "Children in the Mental Hygiene Clinic of Saint Elizabeth's Hospital"; in *Mental Hygiene*, vol. VIII, pp. 112 ff. (January, 1924.)

(5) Those suffering from contributory organic disease, notably epilepsy, post-encephalitis, poliomyelitis, glandular dysfunction, hemiplegias, and the like.

(6) Otherwise normal, everyday children, with definite mental-hygiene problems to be solved. It is with these last especially that the guidance clinic is able to achieve its most obviously successful work, rescuing such children often from lives of distinct limitation and unhappiness, and starting them on new and higher roads to successful and happy adjustment.

Types of guidance clinics. The best-known mental clinics were established in this country well over a decade ago, in most cases, and the work which they have accomplished has not only commended them to the communities in which they operate, but has made them well and favorably known the country over for the conspicuous success with which they have been dealing with the maladjusted and the psychopathic child. Prominent among these older clinics are:

(1) The Psychological Clinic of the University of Pennsylvania, under the direction of Dr. Lightner Witmer, opened in 1896, and handling well over five hundred cases annually;

(2) The Institute for Juvenile Research, conducted under the auspices of the Department of Public Welfare of the State of Illinois, Dr. H. M. Adler, director, opened in Chicago in 1909, and handling two thousand or more cases annually;

(3) The Yale Psycho-Clinic at New Haven, Dr. Arnold Gesell, director, opened in 1911 under the auspices of Yale University, and handling some six hundred cases annually;

(4) The Judge Baker Foundation, in Boston, under the direction of Dr. William Healy and Dr. Augusta F. Bronner, opened in 1917, and handling six hundred new cases annually;

(5) The Columbus, Ohio, Clinic conducted by the Department of Abnormal and Clinical Psychology of Ohio State University, under the direction of Dr. H. H. Goddard, opened in 1914, handling one hundred and fifty cases annually; and

(6) The Mount Sinai Children's Health Class, in New York City, conducted under the auspices of the Mount Sinai Hospital Pediatric Department, under the direction of Dr. Ira S. Wile, opened in 1918, and handling four hundred new cases annually.

Since 1920 there have been established scores of new mental-hygiene clinics, many of which are carrying on a distinctly superior quality of work. Among these newer clinics may be mentioned:

(1) The Helen Hartley Jenkins Juvenile Clinic, at Harford (1923), handling one hundred cases annually;

(2) The Los Angeles Neuro-Psychiatric Clinic (1922), handling some five hundred cases annually;

(3) The Mental and Nervous Clinic of Grady Hospital, Atlanta, Georgia (1923), handling one hundred and fifty cases;

(4) The Neuro-Psychiatric Clinic of Harper Hospital, Detroit, Michigan (1924), handling one hundred cases;

(5) The Child Guidance Clinic of Lymanhurst Hospital, Minneapolis, Minnesota (1924);

(6) The Child Guidance Clinic of Cleveland, Ohio (1924);

(7) The Memphis Child Guidance Clinic (1924), Memphis, Tennessee;

(8) The Dallas Child Guidance Clinic (1923), Dallas, Texas; and

(9) The Richmond Memorial Clinic, Richmond, Virginia (1924).

In addition to the permanent clinics typified by those mentioned above, an enormous amount of meritorious child-

guidance work is being done in smaller and more isolated communities unable to support a permanent service of this sort by occasional or periodic clinics, held in or within easy reach of them at intervals or whenever needed, by State departments of mental disease, or by State hospitals, or by university department staffs. For the less populous communities where only occasional psychiatric work is needed, such an arrangement is quite satisfactory. The clinic may be held regularly once a week, monthly, bi-monthly, or as the need may develop. Thus, in New York State, outside of New York City, fifty-eight towns and cities (1925) have the advantage of regular mental-hygiene clinics at stated intervals; in Massachusetts, twenty-six towns and cities outside of Boston, are similarly served; in Pennsylvania, thirty-seven communities, outside of Philadelphia; and in Illinois twenty-three communities, outside of Chicago, are served in like manner by regular visiting clinic facilities.

The mental health survey. A recent innovation along the lines of clinical study of maladjustment has been the development of the so-called "mental health survey," the primary function of which is to aid teachers and parents in the care and handling of problem children. The survey includes all cases referred, from whatever source, in the community under study, and regardless of complaint. The State society for mental hygiene, or some other capable agency, furnishes the personnel for the work, the local community organizations interested bearing such incidental expenses as may occur. Thus, a survey conducted in 1923 in the three neighboring cities of La Salle, Peru, and Oglesby, Illinois,¹ was instigated by the three school boards, the parochial schools, the chamber of commerce, the Manufacturers' Club, and the women's clubs of the cities concerned. The

¹ Hopkins, Cornelia: "The Mental Health Survey"; in *Mental Hygiene*, vol. VIII, pp. 83 ff. (January, 1924.)

Illinois Society for Mental Hygiene and the Illinois Institute for Juvenile Research conducted the survey, under a grant from the Tri-Cities Charities. In all, three hundred and nineteen cases were referred by the various interested agencies and individuals, and parental consent for the clinical work was granted in three hundred and sixteen of them. A complete social inventory of the family was made in every case, routine physical, physiological, and psychiatric examinations were conducted, and intensive educational and corrective work inaugurated. A team of skilled workers devoted six weeks to the survey. The results were so obviously worth while to the three cities that, through the efforts of individual citizens, a permanent guidance clinic was subsequently established in the district.

Some idea of the possibilities of the mental health survey in individual problem children may be gathered from the following description of one of the three hundred and sixteen cases studied in the Tri-City Survey:¹

John Jones, aged seventeen years, eleven months, was referred by the high school because of poor school work. He is described as being pompous and boastful, indecisive, excuse-forming. He has no court record and has never worked.

The home is visited and the mother seen.

Home: A two-story frame cottage in a residential section. The house is attractive in appearance, tidy, and with many comforts. The grounds are well kept. Family consists of patient, a younger brother, and parents.

Heredity: Maternal side, negative. Paternal grandmother died of paralysis. A great aunt has been paralyzed for fourteen years. One great-uncle died of heart trouble. Another had spells resembling epilepsy after an accident.

Developmental: Nine months' pregnancy. Because of illness in her family, mother felt "unsettled" from the third month of pregnancy on. She never knew whether she wanted to be at her mother's home or at her own. Normal delivery; breast fed. First

¹ *Op. cit.*, pp. 87-88.

tooth, four months. Walked at eleven months. Talked at two years and was inclined to stammer, when excited, up to four years.

Health: He had measles twice and was both times threatened with pneumonia. He grew very fast. He has always been "twitchy" and for this reason has been under a physician's care. (Dr. Blank.) His condition was thought to border on chorea. Patient requires a lot of sleep. On Saturdays and holidays mother allows him to sleep until noon. He always eats a light breakfast and supper, and a very hearty midday dinner. He has been drinking coffee at breakfast for four years. Mother takes him to a farm for two months every summer, where patient swims and lives an outdoor life.

School: He had no difficulty in the grade schools except that in the eighth grade he was very conscious of his size and the fact that he had to wear long trousers. In his first report at high school he was on the honor roll and made 100 in deportment. He was teased for this by other boys who told him that "only sissies" got 100. Patient since shows no interest in school and will not study at home.

Personality: Patient is shy and embarrassed and never enters a group of his own initiative. He rarely joins groups even when urged. He dislikes rough games and cannot bear to hurt anything. The element of competition in games is distasteful. Mother doubts if he ever played marbles. He would rather lose a football game than tackle another boy. He has a few boy friends with whom he has grown up, and while he seems rather fond of them, he is never really intimate with them and continuous association bores him. He would rather stay at home and work at his experiments than go into a crowd even with his family. The only group patient has ever shown any interest in was a Boy Scout group to which he belonged for about two years at the age of twelve. He has manifested no interest in sex matters.

Interests: He has always wanted to be a mechanical engineer. At various times he has been interested in electricity, wireless, moving picture machines, stage settings, drums, and at present an automobile. Although his interests have been varied, he does not flit from one to another. Mother thinks he really gets some insight into one thing before going on to others. He has shown no interest in the church. Parents have catered to patient's interests in the hope of calling out his best efforts in some direction. Mother is surprised over patient's lack of school progress, as his concentration

on his home experiments is well sustained. She and father do not feel that patient is dull, but that "he must have some talent which we have not been able to help him realize."

Impression: Intelligent. Frank. Coöperative. Objective. Interested in the possibility of having patient studied.

The growth of child-guidance clinics. As intimated in an earlier paragraph, the development of child-guidance clinics was slow but steady previous to 1920, and has been much more rapid since. The first clinic to be opened appears to have been that conducted by the Out-Patient Department of the Orthopedic Hospital and Infirmary for Mental Diseases, in Philadelphia. This clinic dates from 1868, and in 1925 was handling some two hundred children and six hundred adult cases annually. Dr. Witmer's clinic at the University of Pennsylvania was opened in 1896, and handles five hundred cases annually. The Neurological Clinic, conducted under the auspices of Rush Medical College, Chicago, was opened in 1898, and in 1925 was handling one hundred and seventy-five children and two thousand adult cases annually. From these beginnings, child-guidance clinics have increased steadily, and the 1925 Directory of the Psychiatric Clinics for Children in the United States¹ lists some two hundred and seventy-five regularly established clinics.

No little impetus has been given to this work by the serious and effective service rendered by the Division of Child-Guidance Clinics, of the Commonwealth Fund Program. This work is administered by the National Committee for Mental Hygiene, through its Division on the Prevention of Delinquency. For some years these organizations have conducted and supervised demonstration clinics in a considerable number of widely scattered communities, with the

¹ Published by the Joint Committee on Methods of Preventing Delinquency. Publication No. 7. New York City, 1925.

purpose of educating the people to the needs and possibilities of guidance work, and the hope that they would catch the vision and take the necessary steps to organize permanent clinics under their own auspices and jurisdiction. St. Louis, Dallas, Los Angeles, St. Paul, Minneapolis, Memphis, and Richmond are among the cities in which permanent clinics have resulted from the demonstration clinics, conducted in their midst for a period varying between six and twenty-four months. How the local communities coöperated with the visiting agency, and took over its work at the end of the demonstration period, is indicated interestingly in the following account of the Dallas, Texas, clinic:¹

From the beginning of the demonstration, the enterprise received encouraging support from the community. The local advisory committee was broadly representative and the Council of Social Agencies, the Chamber of Commerce, the College of Medicine of Baylor University and other leading local organizations gave valuable coöperation in the demonstration. Close association was thus established between the clinic and the social agencies of Dallas generally. One specially gratifying feature which showed the rapid development of public understanding was that, out of two hundred and fifty children studied during the demonstration period, one third were brought in by their parents.

The work of the demonstration merged into that of the permanent clinic without interruption and with every evidence of continuing community support. Several members of the staff had been secured at a sufficiently early date to receive training in the demonstration clinic. The Community Chest of Dallas guaranteed adequate financial support for a five-year period. Baylor Medical College provided necessary quarters in a building adjacent to the hospital and the medical school, and the director was made professor of mental hygiene in the department of neuropsychiatry.

Subsequent reports of the Dallas clinic show that for the three years ending September 1, 1926, a total of 1190 cases have been accepted for study.

¹ Commonwealth Fund Program. *Progress Report*, pp. 20-21. (October 1, 1926.)

The educational work conducted in the community by the permanent clinic has included lecture courses at the Dallas Institute of Social Education, the Episcopal Diocesan Conference, Southern Methodist University, and the college of medicine of Baylor University. In addition, many addresses have been made by the staff before parent-teacher associations, medical society meetings, religious groups, and state, regional, and other social work conferences.

It is much the same story everywhere, and in all aspects of social and community work; at first some philanthropic or privately endowed agency senses the need for a new type of service, and takes the necessary steps to provide it without cost. In due time — sometimes longer, sometimes shorter — the citizenry comes to recognize the value of the enterprise to such an extent as to be willing to take over its financing and incorporate it as a part of the definite and accepted public service.

The staff of the guidance clinic. A guidance clinic, to be adequately equipped for the work it has to do, should include a director who is a psychiatrist, a social worker, a psychologist, and a stenographer. This should be the minimum of personnel for a properly functioning clinic. The psychiatrist should devote three half-days weekly; the psychologist should be on half-time, and the two other workers on full time. The approximate cost is: psychiatrist and director, two thousand dollars; social worker, eighteen hundred dollars; psychologist, one thousand dollars; stenographer, twelve hundred dollars: total, six thousand dollars. Overhead expenses will depend upon the facilities which the community may have to offer; wherever possible, the clinic may well be housed in a hospital wing, an administration building, a dispensary, or some other structure devoted to public or philanthropic enterprise, thus reducing rental costs.

The function of the psychiatrist, in addition to the exercise of a general oversight of the work of the clinic, is pri-

marily to study intensively the cases under treatment and to supervise the remedial work. By training and experience a physician, and an expert in the diagnosis and treatment of mental abnormalities and maladjustments, he is the responsible member of the staff, having the same relationship to the medical clinic that the medical expert has to the pediatric clinic. The function of the other members of the clinic is adjuvant to the work of the psychiatrist. The social worker gathers such information from the home and community background of the patient as will be helpful in analyzing the causes of his difficulties, and in suggesting remedial treatment; the psychologist studies the mental make-up of the child and determines his general intelligence and potentialities; the stenographer takes care of the correspondence and keeps complete files of all cases, together with detailed records of subsequent developments that occur while the patient is undergoing the new regimen prescribed by the clinic. Such a staff ¹ should find it possible to study six new cases each week, in addition to devoting the necessary supervision to cases already under clinical treatment or observation. Volunteer assistance, such as is ordinarily available in most communities, will permit more detailed and extensive study of selected cases.

Pre-school clinics. It has come to be felt among mental hygienists that something needs to be done in great numbers of cases for younger children who possess unfortunate emotional traits, who are fast in the grip of undesirable and unhygienic habits, who are misunderstood and unhappy, or who are otherwise poorly adjusted to their homes or parents. The profound influence exerted over later life by the habits and attitudes established during the first three or four years of childhood cannot be neglected. It is a fact amply estab-

¹ Thom, D. A.: *Habit Clinics for the Child of Pre-School Age*, pp. 2-4. Children's Bureau, Publication, No. 135. 1924.

lished by scores of investigators and observers that during the earliest months of life the foundations of a wholesome and healthful career or for an unwholesome and unhealthful one inevitably are laid. Such being the case, it is of prime importance that the utmost care be taken to keep the influences that play upon infancy and the pre-school years normal and hygienic. Physical hygienists have recognized the importance of these early years long since, and have endeavored to educate parents to the need for pre-school hygiene in the interest of avoiding and preventing unfortunate physical abnormalities that would handicap their children and perhaps lead to serious consequences.

To meet the need for mental hygiene that is recognized to exist both in the ill-adjusted pre-school child and his usually ill-adjusted parents, there have been developed so-called "habit clinics" in many of our larger cities. Sometimes these are independent of the general psychiatric clinics, limiting their service to children under six years of age; sometimes they are undifferentiated from the psychiatric clinics, which serve children of school and pre-school age alike. Inasmuch, however, as the very young child is a totally different individual from the half-grown-up child, many organizations have found it helpful to conduct definitely styled "habit clinics" for children of the former type. The problems that are brought to the habit clinics include mainly those connected with instinctive and emotional expression, such as feeding and food aversions and whims, sex precocity and abnormality, temper tantrums, pugnacity and shyness, destructiveness, etc.; they include also such hereditary and environmental problems as acute personality changes, convulsions, enuresis, psychotic symptoms, retarded development, feeble-mindedness, and the like.

Stenographic report of the case of Mary Smith. As illustrative of the sort of work done in our best habit clinics, the

following verbatim report is presented of a conference between the mother of a twenty-six-months-old girl and the psychiatrist.¹ The child is "extremely disobedient, almost to the point of being negativistic, absolutely refuses to respond to a direct command," must have a bottle of milk to comfort her when she takes her afternoon nap and when she is put to bed at night, refuses to feed herself, and often spits out on the floor what her mother has placed in her mouth, and is a victim of nightly enuresis. Before the interview between the psychiatrist and the mother takes place, the social worker's report has been carefully digested by the former, as has also that of the psychologist, so that he is in full possession of all the relevant facts of the case.

DOCTOR. I understand from Miss W., who visited you the other day, that Mary is becoming quite a problem.

MRS. S. She is, indeed. I hardly know what to do with her. She refuses to eat anything, and she gets me so worked up and so tense inside that I go into hysterics.

DOCTOR. Then perhaps you are not feeling very well yourself.

MRS. S. I am feeling all right now, but at times I get nervous.

DOCTOR. Under what conditions are you most apt to get worked up, Mrs. S.?

MRS. S. Usually when I have had arguments with my husband regarding Mary — how to make her mind and what I should do. When I am trying to make her mind or take her food, he butts in, and says, "Let her alone. Don't keep bothering the child." And on other occasions when she is doing things that he doesn't like, he asks me why I don't make her mind.

DOCTOR. One may assume from the report which Miss W. brought to me that you and your husband get along very well, that you are both fond of and very much interested in Mary, and that you want to do everything possible to have her overcome these undesirable habits.

¹ By Dr. D. A. Thom, Director of the Habit Clinics of the Community Health Association of Boston, and Director of the Division of Mental Hygiene in the Massachusetts State Department of Mental Diseases. In *Habit Clinics for the Child of Pre-School Age*, pp. 4-11. Children's Bureau Publication, 1924, No. 135.

MRS. S. Yes, sir. Mary is the only thing over which we have any arguments at all, and we both want to do all we can to help her.

DOCTOR. You know, Mrs. S., that a child of Mary's age, especially a child of Mary's intelligence, has a very much better understanding of the ordinary things going on about the household than we give her credit for. It is surprising how early a child learns that there is some doubt in the minds of her parents as to just what is right and what is wrong, and, quite naturally, when there is any doubt in the child's mind as to what course he is to follow, he is very apt to take the easiest one, so it is extremely important that you and Mr. S. get together and have a definite understanding as to what you are to expect of Mary. You know, too, that not infrequently parents are apt to discipline children in a rather erratic way. I mean by that much depends upon how the parent happens to be feeling at the time the child needs discipline. If the mother is in a cheerful state of mind and not tired out by the household duties, some breach of discipline may be looked upon as quite amusing, and the parents may speak of it as "cute," and the mother may laugh at the child instead of reprimanding her. On the other hand, if the same thing happens at the end of a hard day when the mother is worried and annoyed and somewhat out of temper herself, the child may be punished and sometimes punished severely and out of all proportion to what she deserves. Of course, you understand that I don't mean it is the method used in your home, but it is a method used in most homes, more or less, and I just mention it so you will understand better what I mean by the importance of getting together with your husband and talking these matters over.

MRS. S. Yes, I know lots of mothers who do just that — laugh at the baby as "smart" one day and slap him for the same thing the next.

DOCTOR. I would also call your attention at this time to something that you probably already know and that is that it is very bad for the child to have the parents question each other's methods of discipline before the child. It is much better to have the mother or father carry out her or his own method even if the other parent is not in full agreement with what is being said or done and then discuss the whole thing in private after the child has gone to bed. It is only in this way that the child learns that the parents are united in their efforts to bring about the desired manners and habits. I think it is of the greatest importance that you talk these things

over with your husband and have an agreement which will prevent any discussion of authority before the child.

MRS. S. Yes, sir; I see exactly what you mean.

DOCTOR. Now we will discuss the feeding problem. I understand that Mary has not yet given up the bottle.

MRS. S. I had her weaned from the bottle, but she absolutely refuses to take milk from the cup. It was only when I put a little water with it that I could get her to drink it. I took her to the doctor, and he said if she wouldn't take milk from the cup, to let her have it from the bottle, and that is what I have been doing for the last few months. She gets the bottle every morning at ten o'clock when she takes her nap and every night when she goes to bed.

DOCTOR. Of course, you appreciate the fact that Mary is old enough to give up this bottle and that her clinging to these habits so strongly simply represents a desire on her part to stick to those infantile methods which she should be gradually giving up. The feeding problem, and the bed-wetting as well, represent habits which are quite normal for infants but which she should have outgrown some months ago, and it is going to be a great deal easier to break her of these habits at two years of age than it will be at four or five. There is no better time to begin than the present.

MRS. S. I realize all that and am willing to do whatever you say.

DOCTOR. Tell me a little about other difficulties with feeding which she has.

MRS. S. She absolutely refuses to take any food unless I feed her.

DOCTOR. You mean by that you have to sit down beside her each meal and actually take the food from her plate and put it in her mouth.

MRS. S. Yes, sir; and she even spits it out.

DOCTOR. Then mealtime must be a very trying experience for you.

MRS. S. Yes, sir; it is the worst time I have.

DOCTOR. Then let me tell you what I have learned from my experience with these children who cause so much difficulty by refusing food. In the first place, we must remember that it is a very natural thing for all human beings to crave attention, and this is particularly true of children. The refusal of food is frequently a method that children use to get the time and attention of the parents. At that time they become the center of attention and it is a battle of wits between the mother and child to see which one will

win. The mother frequently puts the food on the table with serious doubts and misgivings in her own mind as to whether the child will eat it or not, and perhaps her first remark is, "You have got to eat this. You are not going to get up from this table until you do eat it. You didn't eat any breakfast, and you cannot go out to play until you have eaten your lunch." This immediately puts the child in a rather defiant mood. Even if it had not occurred to the child to refuse his food, this in itself acts as a challenge. It is just as though there were a little play going on in which the child is taking the leading part — a situation in which both children and adults like to find themselves. We know that the child knows that invariably, if he does not eat his meals at the regular time, the anxiety on the part of the mother will make her only too willing to provide food between meal hours. So in this way the child is not only able to defy the parent and attract attention and win his battle but he is also able to get the amount of food which his system requires. It may be that he does not get the best type of food and the kind best suited to nourish him, but he gets the food that pleases him most and satisfies his hunger, and that is about all the child wants.

MRS. S. But, Doctor, if I let her go without her meals she will get so thin.

DOCTOR. It will be hard at first, I know, but I would suggest that from now on, or at least during the next week, you and your husband agree to the following plan: Place on the table a smaller amount of food than you would naturally want the child to eat; this would include milk, cereal, fruit, and whatever else you may wish her to have, and absolutely nothing should be said regarding the food itself or the child's eating it. If the child is eating with you and your husband, pay no attention whatever to her eating; after you have finished and sufficient time has been given the child to eat her food, remove the dishes and say nothing at all regarding the amount of food the child has eaten. If Mary has not been in the habit of having milk between meals, under no circumstances give it to her.

MRS. S. She has been having the bottle at ten o'clock, just before she takes her nap.

DOCTOR. Then, under those conditions, I should give her an equal amount of milk in a cup. On the way home, I should drop into the drug store and get half a dozen straws and let her use those during the coming week. It will be a step away from the bottle

and will interest her in taking the milk from the cup. But to continue regarding the more general statements as to her feeding habits. Do not be concerned if she does not eat much during the first few days. It will take a day or so for her to learn from your apparent lack of interest in her eating that no one is very much concerned whether she eats or not. In other words, try to get away from romance at her feeding periods as much as you can. Mary will soon find that she no longer occupies the center of the stage during the meal hour. I appreciate that you will be just as concerned, but the important thing is not to let Mary know it. The task I have outlined is a difficult one, I know, but it is not anywhere near so difficult to manage now as it is going to be a year or two from now; and although the results may be discouraging at first, you may be assured that in the end it will work out not only to Mary's advantage but to your own.

MRS. S. Well, I'll try this week and see if I can stand it.

DOCTOR. I don't want you to look for improvement to-day or to-morrow or the next day, but I want you to think ahead three or four months and then picture Mary eating in a perfectly normal, healthy way without causing you or the rest of the family any disturbance. The only way to do this successfully that I know of is to follow the plan that I have just outlined. It is absolutely essential that you and Mr. S. work together on this matter, because if you do not coöperate the whole plan is doomed to failure, and this first victory for Mary may work out to her disadvantage in later life. I am sure you know many people your own age who are terribly finicky about what they eat, having all sorts of digestive upsets, refusing to accept any suggestion made by others, the type of person who is generally disliked and hard to get along with. It is just such people as these that children with all sorts of finicky habits are quite likely to develop into.

MRS. S. I certainly wouldn't like Mary to grow up like an old woman who lives near us. She's just like that, and nobody can stand her.

DOCTOR. Do you think you will be able to carry out the plan I have outlined? I mean by that, do you feel that you will have the courage to let Mary go for a few days without what you feel is a sufficient amount of food in order to make her appreciate the fact that whether she eats or not is a thing which primarily concerns herself, and that going without food is not going to develop a tremendous upset in the home?

MRS. S. I think I see what you mean, and I surely will make every effort to carry out your instructions and get my husband to also.

DOCTOR. Now let us consider the problem of enuresis. I understand that Mary wets the bed practically every night.

MRS. S. Yes, every night. It has been much worse since she has been getting the bottle just before she goes to sleep.

DOCTOR. Now as the time is getting short I want to outline a plan for that with less explanation than for the feeding problem, as I think this is a much more mechanical thing and will respond to treatment more easily.

MRS. S. I have whipped and whipped her, and as it does no good I have given it up as useless.

DOCTOR. You were wise in giving up whipping her for this habit because she is undoubtedly in no way to blame for it, and it is quite an injustice to whip children for things over which they have no control.

MRS. S. I agree to that.

DOCTOR. Now, what time does Mary usually go to bed?

MRS. S. At 6:30.

DOCTOR. And what time does she have supper?

MRS. S. At 4.

DOCTOR. Then I suggest that you follow out in detail this plan. Let Mary have her supper at 4 o'clock, with such liquids as she is in the habit of taking, bearing in mind the fact that she is to take the milk from the cup and not the bottle; between 4 and 6:30 o'clock she is to have no fluids whatever. Before going to bed she is to be taken to the toilet, and you must see that she passes her urine. When she is put to bed make her understand that she is to be taken up later on in order to prevent her from wetting the bed. What time do you go to bed yourself, Mrs. S.?

MRS. S. At 12 o'clock.

DOCTOR. Do you mean that you go to bed every night at 12 o'clock?

MRS. S. Yes, sir.

DOCTOR. Isn't that rather late?

MRS. S. Well, after supper my husband listens in on the radio until about 10:30. Then I make tea, and we have a little lunch, and by the time I get the dishes cleared away it is about 12.

DOCTOR. Then I would suggest that you make a tour of inspection every hour in an effort to determine just what time Mary wets

the bed, and that at 10 o'clock, three and one half hours after she has gone to bed, you get her up, thoroughly awaken her, and take her to the toilet, being sure that she realizes why she has been wakened; that is, that it is in order to prevent her from wetting the bed. It is important that you do not pick Mary up in a semi-drowsy state and simply place her on the toilet; she must be awakened thoroughly and given to understand exactly why you have wakened her. Then you can put her back to bed and allow her to remain until your husband gets up in the morning, which I presume is about 6 o'clock.

MRS. S. Yes, sir.

DOCTOR. I am sure that if you follow out the instructions I have outlined regarding feeding and bed-wetting, you will return next week and be able to report considerable improvement.

MRS. S. I hope so, sir, for it makes me so much extra work to have her go on this way.

DOCTOR. Before you go I want to remind you again of the most important and fundamental thing that I have said this morning, and that is that you and your husband discuss this matter of discipline openly and frequently and decide upon a plan which will insure coöperation. It seems only natural, inasmuch as you see more of the child than your husband that the discipline should be in your hands and that he should support you and help you follow the plan that you agree upon. Under no condition allow Mary to feel that there is any disagreement between you two as to what is best for her to do. As soon as she finds out that the household is divided against itself, the battle, so far as you and your husband are concerned, is lost, and a great injustice is done to Mary. I see by the tests that have been worked out this morning that Mary is a keen, bright little girl of unusual intellectual equipment, which means that she will be all the more capable of taking advantage of any failures which you or your husband make. You may be assured that we will do everything possible to help you out during the next few weeks, and there is every reason to believe that by Christmas time Mary's difficulties will be well settled. Can you arrange to come back a week from to-day?

MRS. S. Yes, sir.

DOCTOR. Then that will be all this morning, except that I should like to get just a bit acquainted with Mary before you go, but the problem of correcting her undesirable habits will have to be solved very largely by you rather than by Mary.

Instantaneous "cures" rare. While abnormal mental adjustments, like physical irregularities, yield ordinarily to rational treatment, like these they require time and patience on the part of all concerned. The psychiatric clinic possesses no supernatural or miraculous power; it cannot straighten out mental twists and wrinkles in a day or a week that have been ironed in during months and years of wrong reaction. At best, mental prophylaxis requires as much time and common sense as does physical prophylaxis. No one knows better than the psychiatrist and the clinic worker how obstinately some kinks resist all efforts to straighten them out; neither, on the other hand, does any one save the clinician know how readily most irregularities of adjustment will yield to sensible treatment if only the full sympathy and coöperation of the patient and the parents can be enlisted in the battle. One of the chief difficulties the psychiatrist has to contend with, however, is the unreadiness of a parent, even while at her wits' end over the child, to accept specifically the regimen prescribed and to settle down to a considerable period of testing it out carefully. Many indeed are the mothers who, because the prescription is so simple, leave the clinic in disappointment, and proceed only half-heartedly along the new lines laid down. Expecting some striking and spectacular remedy, they cannot see virtue in such commonplace and prosaic devices as the psychiatrist proposes. Their own nostrums will no doubt prove more efficacious in the end! Are not Arbana and Pharpar, rivers of Damascus, better than all the waters of Israel?

Attitude of the layman. This state of mind is reflected somewhat in the general attitude of the rank and file of people toward the mental hygiene clinic. To the ordinary layman the work which the psychiatrist aims to accomplish appears strangely unnecessary, and often futile. "What statistical results can you show me of what your clinic has

accomplished?" exclaimed one of them recently. As well attempt to show statistical results of good training in the home, or of inspiring preaching in the pulpit, or of good-fellowship in the lodge! Statistical results, indeed! To a certain narrow extent, of course, such measurable results can be claimed by any good clinic, but in the widest sense it must remain for some time wholly impractical to try to tabulate with mathematical precision the results of ministering to the needs of maladjusted children and the anxieties and perplexities of distracted and discouraged parents. All we can say with definiteness and finality is that whereas many were blind now they see.

It must be admitted, however, that clinic workers have themselves been somewhat responsible for the unfortunate lack of faith which many parents and laymen have in the service which they render. In many instances they have beclouded the issue in the parent's mind by a mass of verbiage which has been profoundly wise sounding but profoundly sterile in results yielded. What mothers and fathers are interested in is getting practical advice and help, not in furnishing one more "case" to be engrossed in the psychiatrist's records, and perhaps written up with a score of others in a lengthy professional article. "Please don't tell us that he is 'psychopathic,'" pleaded a probation officer to the director of the clinic at Saint Elizabeth's Hospital.¹ "We know he is something awful, whatever you call it. But please tell us what to do about it." This must be the acid test of every child-guidance clinic that would really serve the public, and only in so far as it aids parents and aids children who seek its soothing and calming ministry can it be entitled to the support and confidence of the community. Needless to say, of course, this is the ideal found increasingly among the mental-hygiene clinics already functioning, and this is the ideal that

¹ Richmond, Winifred: *op. cit.*, pp. 106-07.

is calling more and more of them into existence every year. To serve unhappy and unadjusted children, youth, and parents, and to serve them unstintedly, must be the ambition of every member of the clinic staff.

Popularizing a child-guidance clinic in a community. It is not always an easy task to stir the inertia of a community to the point where the fathers and mothers and clergymen and teachers and others concerned with the welfare of the children in their midst will seek for those who need it the service of the child-guidance clinic. We in Worcester were confronted with such a condition in 1925, when the question arose of making the Child Guidance Clinic serve the city more widely than it had done during the four or five years of its existence. It was decided to initiate a definite effort to reach the attention of as many of the people of the community who had the responsibility of caring for children as possible. These should include the principals and teachers in the public and private schools, the clergymen, the directors and workers in charitable organizations, the social workers, the leaders of boys' and girls' clubs, the physicians and court officers, and the parents themselves.

Several lines of attack were followed up. In the first place, in order to lend calibre to the clinic and to stamp it definitely as an all-community service, some two dozen local persons prominently identified with educational and medical and social work were invited to comprise an Advisory Committee, and their names were placed upon the clinic stationery. Each one of these individuals became a committee of one to conduct informational propaganda for the clinic in the societies and clubs to which he belonged. In the second place, the coöperation of the superintendent of schools was enlisted, and a series of weekly lectures in the general field of mental hygiene was arranged to be given by the Director, Dr. H. B. Moyle, to the teachers of the city.

In addition, two members of the Advisory Committee offered jointly a series of eight public lectures on the same theme. In the third place, the Sunday editor of a local newspaper was found to be willing to have a complete write-up prepared of the work of the clinic, with suitable illustrations, and this material was made a feature of one of the Sunday editions. Fourth, several speakers from outside, some of them nationally known, were brought in and held conferences with the Advisory Committee and made public addresses on the subject of mental health, especially as related to childhood and youth. Finally, but by no means least in the good which it accomplished, a brief folder was prepared by the director and spread broadcast among such organizations and individuals as might be expected to be interested in the service which a child-guidance clinic could render. A part of this folder is reproduced here, as indicating a point of approach which should prove successful in any community where it is desired to inform the public of the opportunities afforded by a child-guidance clinic:

WHY A CHILD-GUIDANCE CLINIC?

WHAT DOES IT OFFER?¹

This community is deservedly proud of the work done for children who are in various ways handicapped. Hospital wards, vacation camps, nutrition clinics, special classes for retarded children, are all doing work of a high order with immensely valuable results not indeed to be estimated in monetary terms. Notwithstanding this every man and woman whose work brings them into frequent contact with children knows boys and girls who remain problems in their homes and in their schools. We are becoming increasingly aware that some of the greatest handicaps which burden childhood are not those of physical illness or financial poverty but rather those inherent in limitations and defects of their own personalities. There are a large number of such who for many

¹ Prepared by the director, Dr. H. B. Moyle.

reasons and in various ways are not "getting along." They provide the most difficult problems in home training and school discipline, the most puzzling types of delinquency in the juvenile courts, the most disappointing cases in the work of child-helping agencies, and themselves are more or less unhappy and conscious of fighting an unequal battle with adverse conditions.

It is particularly this group of children that the Child-Guidance Clinic seeks to study and to help. It seeks to find why the "bright" boy gives continual trouble in school, why a "good" home is a place of disappointment and anxiety, why the growing boy or girl is not able to make friends and find a normal social life. And at times when the environment is obviously wrong it attempts to "take stock," so to speak, of the child's physical, mental, and personality assets and liabilities and suggest what must or can be done in the way of change. Hitherto it has been largely tacitly assumed that the child must be made to fit the environment. After seeing many unnecessary and often tragic failures, we are finally coming to see it will be fairer, and in the end cheaper, to fit the environment as nearly as may be possible to the needs of the child. Twelve-year-old Johnnie in the sixth grade knows nothing of our educational or social theories, but he is vividly aware of the alluring and sometimes difficult world in which he spends his waking hours.

In all fairness if in any way there is failure where there ought to be achievement, apathy where there should be keen interest, or discouragement in place of happy activity, we should do the searching and attempt to make a rebuilding.

No ready-made formulæ are offered in the clinic and there are no panaceas to be prescribed. Every child receives a careful physical examination to determine any possible abnormality or handicap and if treatment of any kind is desirable, consultation with a physician or clinic is advised. Then a psychological examination gives the basis for an estimation of the mental development and educational possibilities. In view of this data with the history given by parent or interested worker, the whole situation is studied with the child's own personality as the point on which attention is focused. On this basis recommendations are made, often necessarily of a tentative character, and the child's progress is followed.

No instantaneous "cures" are effected nor are dramatic changes expected from our work. Those who have used the clinic resources do feel, however, that children are being helped and that

in it they have an additional weapon of some value in dealing with their problems. This fact with the further fact that an increasing demand is being made for the services of the clinic is the basis for the feeling that this work should be made more widely known in the community. Over six hundred children seen in the five years since the clinic began work and between eighty and ninety brought for study in the past eight months indicates a real need for such help. With wider knowledge of its work it is hoped the clinic will be of steadily increasing value to this city in the study of one of its fundamental problems. Any one desiring further information will be welcome to visit the clinic. Appointments may be made with the social worker or the director.

The results achieved by these various devices and plans were highly gratifying. A new interest in the mental well-being of childhood was created widely throughout the city. Not only did more teachers and social workers enlist the ministry of the clinic, but the individual parents were encouraged to seek its counsel and help in greater numbers than ever before. The Worcester Child-Guidance Clinic is consequently filling a much more important place and rendering a much wider service to-day in the social economy of the city than it could perhaps possibly have done otherwise.

The child-guidance clinic and the teacher. There is no more hopeful vehicle for carrying the guidance-clinic idea into new communities than is represented in the teacher herself, if she is alive to the needs for such service. Hardly a community in the land is so small that the ministrations of a psychiatric clinic are not ordinarily needed occasionally, or so remote that they cannot be occasionally provided. Many a child might easily and certainly be saved from a life of unpleasantness and needless limitation, and many a home might be veritably transformed in the influence which it exerts over its ill-adjusted boy or girl, by a little timely help from the psychiatrist. Teachers should be keenly aware of

these facts, and should consider it to be one of their greatest opportunities to interest themselves in such cases, in the hope of securing the service of expert guidance workers to smooth out the difficulties.

Sometimes, if the community is within reasonable and easy reach of a larger city where a mental-hygiene clinic is in operation, the teacher can advise and encourage the parent to plan a trip to it — or several trips if needed. Our Worcester Clinic, for example, serves an area many miles beyond the city limits. Sometimes the nearest State hospital equipped for this service will be found willing and glad to consult with a parent in an individual case. Sometimes these institutions maintain regular clinics in widely scattered communities within easy reach. Sometimes they are able to hold a clinic anywhere within their district, all that is necessary being the request and the making of an appointment. Sometimes university psychiatric clinic staffs serve wide areas in their districts. Sometimes, as in Massachusetts, New York, Pennsylvania, and other States, the department of mental disease holds clinics periodically in remote sections of the State, some one of which can be readily and conveniently reached.

The opportunities for clinical service along psychiatric lines are already numerous, and are steadily being extended. It should be the ambition of every teacher to inform herself of the most easily available means of obtaining such service for the community in which she is employed, and then to encourage those parents who are obviously in need of advice and counsel in the training and care of their children to avail themselves of its privileges and help. She will thus in a large way fulfill her mission not merely as a teacher, but as an enlightened and effective social worker, which is after all the high goal of her profession.

TOPICS FOR SPECIAL STUDY AND REPORT

1. Familiarize yourself with the work of some guidance clinic, and report the results of your study in class. Your instructor will be able to assign several clinics to the students for this purpose. Material may be found in the files of *Mental Hygiene*, *The Psychological Clinic*, the Commonwealth Fund Reports, the Children's Bureau Publications, etc.
2. Go through the "*Directory of Psychiatric Clinics for Children in the United States*" (see p. 361) and familiarize yourself with the location of the guidance clinics within your own State; your own district or section.
3. What, if any, preventive work in the field either of physical or mental health is being promoted in your city? By whom is it being carried on? Are there any available data to indicate (a) the growth, (b) the present extent, and (c) the results of this work? What seem to you to be the chief local needs along these lines?
4. Work out complete plans for the establishing and the promotion of a child-guidance clinic for a small city, it being assumed that the services of an expert clinic staff from a near-by hospital or other source are available without cost for occasional appointments.

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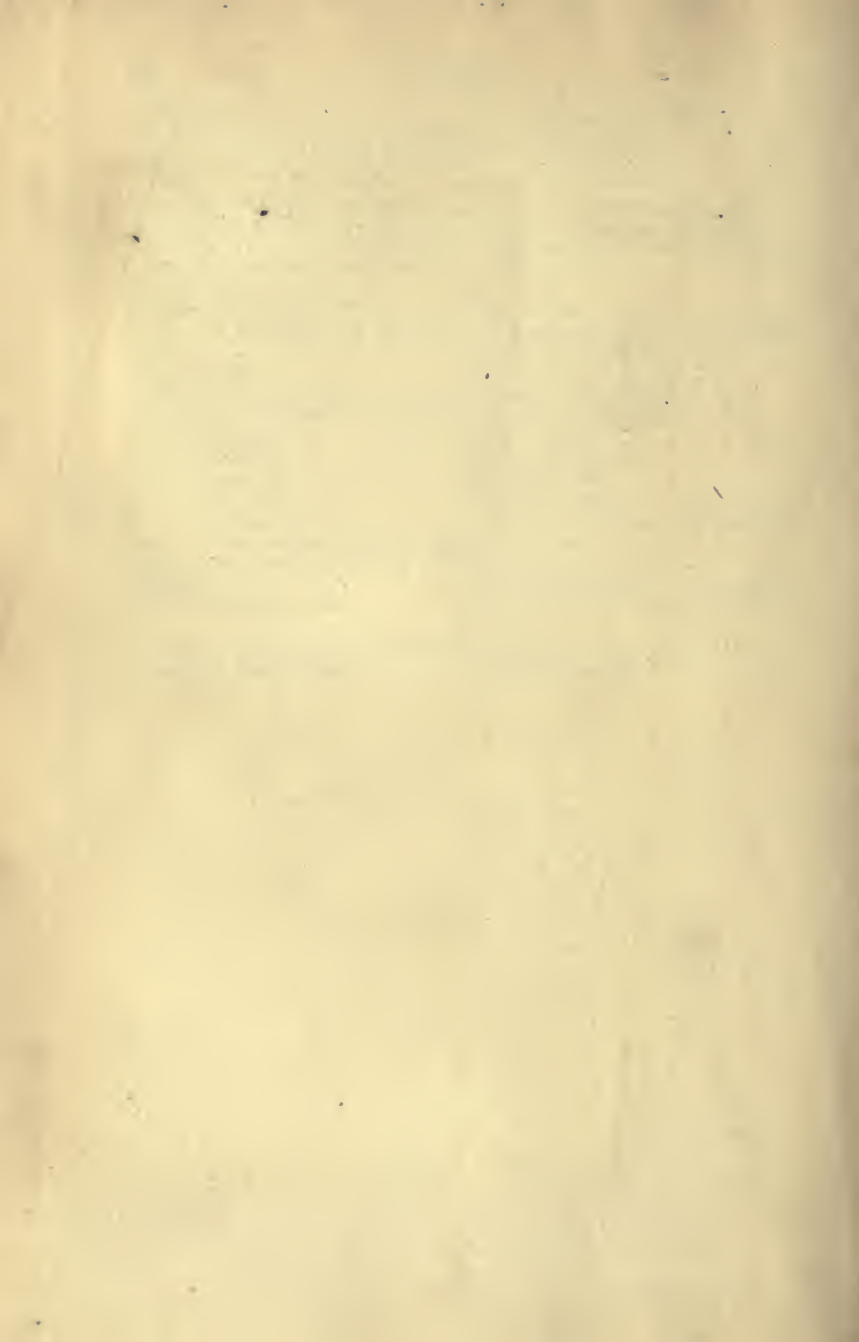
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